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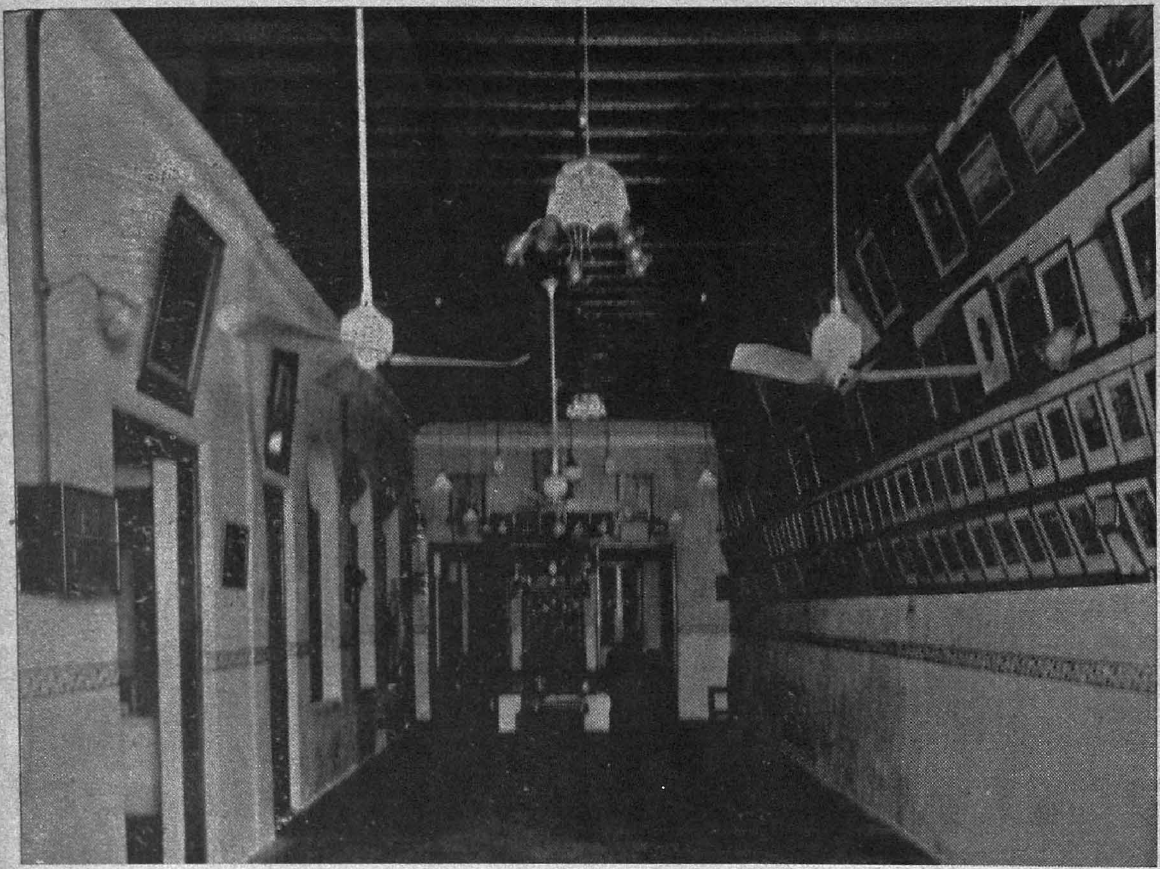

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ON THE NEED FOR A RESEAR SCHOOLS A GES

BY

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The widening of the bounds of knowledge in all departments of human activity is essential for the healthy development of the intellectual life of a nation. A careful examination of the history of any country with a glorious past shows us clearly that when civilisation was at its high water-mark, the leading intellects were making critical tests of the then existing lines of knowledge and striking new paths of approach. Research keeps up the life of a nation. Indirectly it affects human thought by giving a precision to the current modes of thinking.

Large amounts of money are being spent in civilised countries to-day for the encouragement and fostering of research in all branches of knowledge. Departments of scientific and industrial research make liberal grants, national councils offer fellowships and the various branches of industry maintain their own highly specialised research laboratories. Besides these, the Universities have well-equipped laboratories from which flow every year large numbers of original contributions to scientific knowledge.

It should be remembered however that these efforts should go hand in hand with proper facilities for inculcating a spirit of scientific research in the schools and colleges. The young students should be taught to be seekers of truth in their classrooms if they are to be of any use to the country in the matter of higher research. Defective training is bound to curb their powers of observation and judgment. It is highly necessary therefore that the development of our school and college life should be so directed as to foster in our young students a thirst for more knowledge, a spirit of scientific enquiry into any given set of facts and a freedom to question authority.

It is no doubt true that geniuses are born and not made. But a badly conceived system can curb the development of a brilliant mind—or at any rate retard its progress forcibly. How many boys, who have shown extraordinary precocity, have become mediocrities in later life? Such lapses are to be considered as a national waste of intellect. It should therefore be the aim of any rational system of education to prevent such a

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him; he becomes critical of his own actions and observations and cautious in his conclusions. The world is only a huge laboratory. There are always problems facing any man. He has to listen to various ideas from his friends and judge for himself how best to act under a given set of conditions. Can any one seriously suggest that a sober and enquiring head is not essential for sound judgment?

In the laboratory, there should be an active endeavour to study the laws of nature. Appliances and apparatus are only the tools to help in this search. They can lead us to the right conclusions only if they are properly used. Every piece of apparatus has a human touch about it. One might get to know it well and sometimes cajole it and humour it before he can use it for wresting any secrets from nature. It is very often the practice in our schools and colleges for students to quarrel with the tools. They should be taught to test the efficiency of the available appliances, to put together odd pieces for their work and not to depend on the Scientific companies for nicely finished and well-varnished products. Their endeavour should be more to get the best out of the existing materials, provided they are reasonably good for the objects of the investigation on hand.

A great handicap in our scientific education is that very few of our schools and colleges have really well-equipped laboratories. Very often the same experiments are repeated year after year with unsatisfactory and inefficient pieces of apparatus. "How many readings should I take with this apparatus, Sir?" or "How am I to proceed with this experiment?"—these are the questions hat every teacher of science often comes cross in the laboratory. This implies that ie students are satisfied with ready made pinions and are not prepared to investigate and satisfy for themselves the reality of the natural laws. In several of the more important laboratories, pieces of apparatus become mere objects of worship; they are placed inside glass cases and are looked on from a distance by the students. Very often they are afraid to work an apparatus lest they should break a glass piece or a small screw and be fined heavily. Such conditions are bound to produce a sense of self-distrust in the young student. On the other hand the apparatus bought must be robust and well-designed, ready to stand reasonable meddling and the student must be encouraged to handle them carefully and work out things for himself. A few breakages are bound to occur and these really help the investigator to be more careful thereafter. Nothing handicaps a seeker after truth so much as an undue sense of doubt and distrust in his own actions. Self-criticism is no doubt essential but should not be carried to extremes.

It is necessary in the interests of scientific education that badly equipped laboratories should not be allowed to train students in the science courses. Good equipment does not always mean much money—at any rate the equipment contemplated for Intermediate Colleges and high schools. An excellent idea will be for teachers' associations to move in the matter and consider the

cheapest methods of fitting laboratories. Where, for example, a number of high schools are under one management—as in the case of District Boards—one of the favourably situated high schools can be provided with a small workshop having ordinary facilities for metal and wood work. I am confident that such a workshop can supply most of the necessary scientific apparatus for the different high schools comprised within the range contemplated. It is foolish to continue to import ordinary appliances from abroad for individual high schools, when such co-operation will lead to the production of more robust and cheap apparatus.

I have always felt that the correct attitude of a student when he commences to do an experiment in the laboratory should be that of an original investigator. He should not take up the problem as one who attempts to verify any given law but as one who proceeds to discover the law. It is only in this case that the student will be made to study the conditions influencing the operation of the law. He should be encouraged to read as many books as are available on any experiment and should be allowed to follow his own method under proper guidance. Mere repetition of any experiment in a stereotyped manner will not lead any one to the current understanding of the points involved.

Facilities should be given to the students to attend frequently popular lectures in scientific subjects suitably illustrated by lantern slides and demonstrations. Nothing impresses them so much as ocular demonstrations of what to them are complicated problems. It has been with the greatest interest that I have watched boys hardly ten years old playing with the models of several engines in the great museums of the western countries. The models are placed within huge glass containers, visible from all sides and operated by controls from outside the cases. They are made fool-proof and the children take an endless delight in operating the screws and observing how the models work. Such observations produce a great impression on the young mind. Our students must also get similar facilities—at least by the help of travelling exhibitions arranged with the co-operation of several neighbouring schools.

Another important method of inculcating interest in scientific research is to give in the classroom details about the lives of various distinguished scientists. It is not merely enough to state and discuss the laws of nature but the students must be told how these laws were discovered. Interesting information regarding the lives of the distinguished savants who discovered these laws will not merely enliven the class but act as an inspiration to the students.

Above all, what we need to-day in our laboratories is a strict adherence to truth. Our young men should be taught to take a faithful record of all their observations and depend on the accuracy of their own figures.

It must be remembered that the position of a country in the civilised world is judged as much by the distinction attained by the men of letters and of science as by the politicians. We should therefore feel it our duty to implant in the young minds we have the occasion to train, the germs of truth and of understanding. There is nothing nobler than truth. Keats summaries the whole position in these ennobling lines,

> Beauty is truth, truth beauty; that is all
> Ye know on earth and all ye need to know.

The spirit of scientific research leads its votary to the paths of truth. Let our schools and colleges be changed into places where the students learn the virtues of truth so that on this bedrock they could build their future and the future of our country.

GENERAL SCIENCE IN OUR SECONDARY SCHOOLS

BY

Mr. M. S. Sabhesan, M.A.

OUR POSITION

"More potatoes to carry but a smaller basket to put them in". This is how Prof. Miall describes the prevailing tendency in the sphere of secondary education. The exacting and complex conditions of modern life make new demands upon schools; and much more is expected of them at the present day. It is no wonder that the public should happen to be dissatisfied with the programme of schools. This dissatisfaction is worldwide. But the situation which the schools in our country have to face is found to be more trying since they cannot count upon the active co-operation of the *home and the community.* With the majority of pupils, the classroom is the only place for learning; and the value of school clubs and excursions as educational instruments has yet to be appreciated. Those who are called upon to formulate a curriculum which will enable our secondary schools to play their varied *role* efficiently cannot shut their eyes to the peculiar conditions in our presidency.

PLACE OF SCIENCE

Prof. Miall has put in a nutshell the position in respect of the curriculum. The educator has to decide what subjects should be included in the courses of study in secondary schools. Very few will be found to question the claims of science for a place in the curriculum. Thanks to the vigorous campaign carried on in the nineteenth century by Prof. Huxley and his friends, Science has found a place in the curriculum and come to stay. As a matter of fact, the feeling is growing strong that science is receiving undue prominence to the detriment of humanities. The true educator is not interested in this controversy of Science versus Humanities. He prefers to look at the question not as a partisan but as a well-wisher of the pupil. Day after day he realises that science and humanities should not be pitted one against the other and that the two branches are really complementary. The Committee appointed by the British Association for the advancement of Science with Prof. Gregory as Chairman have reported upon the method and substance of "Science Teaching" in secondary schools. Their observations which are contained in the Report of the Association for 1917 should receive our earnest attention. They maintain that science should be made to form part of the educational course of *every boy* in the secondary school. The same view is presented later on with greater force by the Haldane Committee appointed by the Prime Minister to enquire into the position of Natural Science in the educational system of Great Britain. They argue that the general science course should be made obligatory on all children between 12 and 16.

AIMS

While discussing the place and scope of a general science course, we may be called upon to state our aim in prescribing such a course. According to the Gregory Committee, a general science course seeks (1) to train the powers of accurate observation of natural facts and phenomena and of clear description of what is observed (2) to impart knowledge of the method of experimental inquiry (3) to provide a broad basis of fact as to man's environment and his

relation to it and (4) to give an acquaintance with scientific ideas now common in progressive life and thought. Apart from these general considerations, there is much to be said about the educational value of a course in science. "It can arouse and satisfy the element of wonder in our natures . . . It quickens and cultivates directly the faculty of observation. It teaches the learner to reason from facts which have come under his own notice." There is one point which the Gregory Committee have taken care to emphasise and it will be good for teachers in Science to bear it in mind. They want them to remember that the object of the general science course in schools is not to train physicists or chemists. The remarks of the Haldane Committee are equally clear: "Again, in many schools the *course is planned as if its sole object were to lay the foundation for specialised study in science at a later period.'*

BIOLOGY IN THE SCIENCE COURSE

Now for the subjects to be included in the general science course. It is seen from the reports referred to above that for many years the science course followed in English schools included only the elements of Physics and Chemistry. The study of biology did not find a place in several boys' schools and even Nature study was dealt with in a perfunctory manner in elementary schools. The time allotted to the teaching of science was on the average two hours a week and the laboratory work did not receive proper attention. It was reserved to school clubs to afford facilities for the study of plants and animals. The observations of the Haldane Committee regarding the principles that should underlie the science course are quoted here in full for obvious reasons:

"In framing a course in science for boys up to the age of 16, it should be recognised that for many this will be the main, for some the only, opportunity of obtaining a knowledge of science, and that the course should therefore be self-contained and designed so as to give special attention to those natural phenomena which are matters of everyday experience, in fine, that the science taught in it should be kept as closely connected with human interests as possible. The keen interest which many boys feel at this age in the application of science, such as aeroplanes steam engines, wireless telegraphy, motor cars and the like should be utilised to the fullest extent." The same committee have recorded that "in very few boys' schools is there any attempt to give a knowledge of the main facts of the life of plants and animals" and they have seen fit to observe that "no boy should leave school with the idea that science consists of chemistry and Physics alone". It is easy to mention the reasons which should have prompted the committee to put in a strong plea for the inclusion of the study of animals and plants (elmentary biology in a general sense) in the general science course. All that has been said about stimulating curiosity and observation applies with equal force to biology. The study of Animals and plants should find a place in the science course for more than one reason. In the first place, animals and plants are easily available in every locality and a lesson in Animals or plants will not degenerate into mere book-learning. Secondly, children are naturally interested in animals and plants and they will form suitable materials for cultivating the faculty of observation. Our boys are not ordinarily trained to keep their eyes open and several things which they meet on the way are left unnoticed. A regular study of animals and plants will remedy this defect and make them alert. This study also affords opportunities for boys to go out into the forest or the field and to observe plants in their own homes. Anything that encourages our boys to go out into the open and to see for themselves should be welcomed in our presidency. The study of plants and animals creates an intelligent and sympathetic interest in the living forms around them and the softening

influences of such an association cannot be underestimated. Further, there is the likelihood of boys being interested in plants and animals as hobbies which in their after life will help them to enjoy life and to appreciate the sublime and the beautiful.

SCOPE OF BIOLOGY

The ground that can be covered in biology in the secondary school will to a great extent depend upon the preliminary course in Nature study undergone by the pupil in the elementary school. A good training in Nature study accompanied by a regular work in the school garden should certainly prove valuable. The scope of biology is roughly indicated as follows in the report of the Haldane Committee: "We have already laid stress on the point that some knowledge of the main facts of the life of plants and animals should form a regular part of the teaching in every secondary school. Systematic work in Zoology, including dissection of animals and the use of the compound microscope, belongs to a later stage of school life, but the main facts as to the relation of plants and animals to their surroundings, the changes in material and in energy involved in their life and growth should form part of a well-balanced school course. There is a considerable measure of agreement among our witnesses to the effect that the course might include the main anatomical features of the higher plants, the elementary physiology of plants, especially their relation to the soil and to the atmosphere together with some quite general knowledge of animal metabolism." The Gregory Report of the British Association for the advancement of Science contains draft outlines of topics in the different subjects proposed to be included in the Science course and teachers may peruse the same with advantage. Sometime back the topics in Natural Science included in the syllabus in Bulgarian Secondary schools appeared in the columns of this journal. A perusal of these courses will show that our course cannot be regarded as heavy or ambitious. But the fact remains that "the poor boys are reported to be overworked". Why?

WAY OUT

Teachers frequently complain that the course in Elementary Science is unduly heavy and Teachers' organisations recommend the deletion of subjects such as Animal life from the course. The findings of Expert Committees like the Gregory and Haldane Committees are clear with regard to Animal life and plant-life and one would not like to treat the recommendations in a light-hearted manner. The heaviness of the course is attributed by a number of teachers to the difficulty of the foreign medium. It is admitted that a much wider ground can be traversed with greater ease if the medium of the mother-tongue be employed for instruction and examination. Does not the remedy lie in adopting without any delay the medium of the mother-tongue?

One reason why every course is criticised as being oppressively heavy is the system of the common external examniation which by the common consent of teachers has been allowed to occupy an eminent position and to influence their work at every step. Time was when elementary science and Geography found a place along with History in the list of subjects to be studied by all pupils. These subjects were deliberately excluded from the list of subjects for the public examination and it was hoped that teachers would give each subject its due recognition and plan their course so as to suit the needs of the pupils in the locality. Now that all subjects are, as the result of our agitation, included in the list of subjects for the public examination, the complaint is made that the course is heavy and relief is sought to be obtained by doing away with subjects of real value to the pupil. Is it not better to retain the existing course in Elementary science and to make

it a non-examination subject than to cut away subjects on account of the imaginary strain? Should not a teacher change his mentality in respect of examinations?

Another factor which has been responsible for the persistence of the complaining habit is the over working of teachers in secondary schools. More subjects mean more work and more note-books. In the case of Science it involves additional work in connection with demonstration experiments. Teachers are not given necessary help by way of laboratory assistants and they have to arrange for experiments during the few periods of leisure. The less said about library facilities, the better. If boys find science teaching uninteresting, it may be because the teacher finds it physically impossible to cope with the work however conscientious he may be. The salaries that he gets are low and conditions in the school sap his energy and make him indifferent. The Gregory Committee have been constrained to observe that the "standard of education rises or falls with teachers and is largely influenced by the conditions under which their services are rendered." The Haldane Committee are still more emphatic on this question of status and salaries of teachers. If only the managing bodies and authorities would care to understand the significance of their remarks, it may be possible to expect a more satisfactory return for the expenditure on education.

We sometimes hear that teachers do not feel competent to teach all the subjects included in the general science course. The course has been devised on the assumption that the graduate teachers in Physics and Chemistry who are generally teaching biology should be in a position to handle animal and plant life. From my knowledge of the conditions obtaining in schools, I am led to think that such teachers are able to teach biology without difficulty. Extension courses conducted under the auspices of the university and the Training College will enable them to teach biology with greater confidence and interest. Such teachers are in a position to take a comprehensive view of the syllabuses in the different subjects under elementary science and they can remove the impression that the different subjects ought to be necessarily treated in all stages separately as distinct watertight compartments. There is vast scope for the application of the principle of correlation and I venture to suggest that an experiment should be made of entrusting the entire teaching of Elementary Science in a school to one teacher so that he may be able to find out the extent to which the principle of correlation may be profitably applied. Out of 300 and more high schools, at least a few schools may work on such lines and their experience will be very useful in recasting the courses.

FREEDOM

It remains for me to refer to one more point and that is a very important one. Very often teachers represent that definite syllabuses for the different subjects should be prescribed. It is a well-nigh impossible task to devise a syllabus that will be found acceptable to all. A rigid cast-iron syllabus will defeat the very purpose for which the inclusion of the subject in the curriculum has been proposed. All that can be expected from the expert bodies is a general outline of the topics along with the principles that should be kept in view. Schools are scattered throughout the Presidency and they work under very dissimilar conditions. If our object be to stimulate interest, the teacher should be free to adopt a method or plan suited to the locality and to the needs of the pupils in that locality. A scheme that will be suitable for Madras cannot be applied in its entirety at Anthiyur or Pattamadai. It is not beyond the wit of any teacher to fill

up the details himself and to make the course complete. The Haldane Committee also feels that it is neither possible nor desirable to enforce a rigid syllabus. This demand for a uniform detailed syllabus is closely associated with the unnatural cry for a uniform public examination. A rigid syllabus and an external public examination are two factors which are sure to encourage cramming and kill initiative. Far from bringing about a sound dissemination of scientific knowledge, this plan will make teaching stereotyped and mechanical. We do not think just now of those schools that look only to the scoring in the eligibility list and subordinate all real interests to the results in the public examination. Our concern is really for those schools which are anxious to follow the true path and give sound education to their pupils. Should they not be allowed to enjoy freedom to plan their work according to their conceptions?

If the science course be condemned today in our presidency, it is not because of any serious inherent defects in it. Is the course to be condemned because teachers are unwilling to adopt the medium of the mother-tongue? Is the life-long interest of the youth to be sacrificed to satisfy the unnatural craving for an unreliable public examination on the part of teachers? Should the standard that we should aim at be determined by an ill-equipped under-staffed school? Let the teacher stick to his true ideal and jealously maintain his freedom to plan his course, and the course in Science as well as the teaching profession will rise in the esteem of the public.

THE UTILISATION OF MUSEUMS IN SCHOOL TEACHING

By

MR. F. H. GRAVELY, D.SC.,

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The exhibits of an up-to-date public museum provide the teachers of any schools from which they are accessible with valuable means of illustrating their teaching in ways beyond the limitations of classroom possibilities and school finances. But for effective use to be made of them special methods must be employed, often unsuited to classroom work and therefore not coming within the ordinary experience of teachers.

Occasional visits by one or more classes to a museum give the children a change of scene, breaking the monotony of school routine, and are also useful in extending the children's interests. During each visit a considerable amount of freedom is generally desirable for at least a part of the time; but children should never be allowed to develop a habit of wandering aimlessly about, looking at things in general but paying attention to nothing in particular. Before bringing his class, therefore, a teacher should always pay a preliminary visit himself, reading carefully the explanatory labels of the gallery to be studied, and calling if necessary for further help from the technical staff of the museum. Unless such preparation is made beforehand the teacher will be unable to satisfy the children's curiosity as it is aroused by the exhibits, and the time spent on the visit is likely to be largely wasted.

Each visit should have a definite object and should ordinarily commence with a short period of instruction concerning it. The objects of different visits should be as varied as possible, but many of them will naturally arise out of the school syllabus, which will always be found to refer to a number of things that can be better demonstrated in a public museum than in a school, where extensive collections cannot as a rule be readily stored. But there are other things which, though they may perhaps sometimes be more easily demonstrated in a museum than in the school, are really suitable only for the latter, as, to be effective, the demonstrations must be continued for several days or weeks, and should be attended to by the pupils themselves if proper interest in them is to be aroused. Among the latter I would include such items as the life-histories of frogs, butterflies and mosquitoes, the young of which can readily be reared with the simplest equipment imaginable.

The first educational duty of a public museum is to provide neat, attractive and well arranged exhibits, all clearly explained by suitable labels so written as to be of real interest to the general public. And the first duty of a school wishing to make use of such a museum is to arrange for any teacher who is to take children there, first to pay a preliminary visit himself by way of preparation. But unfortunately neither is easy to carry out. Satis-

factory labelling requires knowledge combined with active research, both of which require much time; and the classification which provides the simplest basis for the orderly arrangement of exhibits lends itself much more easily to technical than to popular labels, especially as regards natural history; while teachers are busy with their curriculum and with various daily duties which leave them little time to prepare for school visits to outside institutions. Teachers may also not unnaturally feel that they can never hope to acquire the intimate knowledge of the exhibits of a museum that may reasonably be expected of its staff, and may forget that the museum staff cannot have their intimate knowledge of the individual needs of different pupils.

A public museum gallery should contain a collection of specimens, the significance of which is fully explained in labels; some even suggest that its real aim is to contain a collection of labels illustrated by specimens. Such ideals are difficult to achieve in full and it must be recognised that labelling is often inadequate. In most museums the technical staff is small, with the result that explanatory labelling is apt to progress very slowly. But visitors are much too apt to see the specimens and overlook such labels as there are, thus missing much of the significance of what they see. Teachers who fail to make use of the explanations that are to be found in the galleries, and expect to be spoon-fed by the museum staff instead, are likely to find themselves turned empty away.

If a visit is intended to be definitely instructional it is disastrous to attempt to conduct at one time more children than can together see the objects to be explained. If, as is perhaps usually the case, larger numbers have for reasons of convenience to be included in the visiting party, it is best to send the children round in small independent groups which can look at different things at different times, the teacher going from one to another to call forth or answer questions. Games may also be utilised to draw the attention of the children to the meaning of different exhibits. For instance, a series of simple questions may be prepared which the teacher knows can probably only be answered if the children find certain exhibits and pay due attention to their labels; and different groups may be set to compete with one another as to the number of these that they can answer in a given time. In their search for the particular exhibits referred to, the children will incidentally learn about other things as well. Such a series of questions is not difficult to prepare. But it must obviously be made beforehand, for if the first part of the visit has to be spent upon it the children are likely to get bored and tired before it can be ready. And it must be freshly prepared by the teachers themselves to suit the particular abilities of the children to be brought. Any stock set of questions prepared in the museum and kept for the purpose would soon become too well known to be of any further use. This method has the advantage of requiring little or no supervision from the teacher except at the beginning and end, and can therefore readily be combined if desired with a short period of special instruction to the different groups of children in turn.

Before leaving the subject of public museums it may be well to emphasise the obvious fact that it is essential for schools actively to co-operate in any scheme by which they are to obtain assistance from them, keeping them well informed of their needs. For the successful working of any such scheme it is further essential that both the school and the museum should appreciate the difficulties and limitations of the other and should jointly do everything possible to overcome them.

As regards school museums, by far the most useful type, as well as the cheapest

in cash, though not in devotion and labour, is that in which the exhibits are as far as possible collected, labelled and arranged by the children themselves. A considerable section of such a museum may advantageously be devoted to collections, notes and sketches illustrating the progress of the current year—necessarily a temporary exhibit, to be started afresh annually, and much of it (such as fresh flowers) to be renewed every few days. The rearing of caterpillars, tadpoles, mosquitoes, etc., referred to above will often be more conveniently done in connection with such a museum than in the classroom.

A school museum is not to be judged according to the number of objects it contains which the teachers can use to illustrate and add an air of reality to their lessons, though this has its importance; still less by the number of lifeless and dusty models of things with which both teacher and pupil should be familiar as realities; but by the amount of interest which it arouses in the children in things around them.

SCIENCE TEACHING IN THE HIGH SCHOOL

By

Mr. K. V. Subramania Sastri,

Kurnool.

The Secondary school curriculum lays down the study of science both as a compulsory subject of general cultural instruction and as a subject for advanced study. As a subject of general cultural value the scope of teaching involves not teaching something of one particular science but a little of all common sciences, which covers to some extent all common and familiar topics.

As a subject for advanced study option is given to the management to select one of the Sciences like Physics, Chemistry or natural science. In the case of these subjects, practical work has to be done in the laboratory and the pupils are to face a practical examination. This means that every high school should have a separate laboratory.

The equipment and maintenance of a good laboratory—giving practical training to each pupil and the selection of the students for the special study of science are the additional problems which a science teacher in a secondary school has to tackle. The problem of equipping the laboratory and its maintenance become more and more complex in colleges for university education.

In the theory classes in a secondary school all science classes are more or less of an information-giving nature with ample demonstrations and opportunities for observation. They cannot generally be of any other nature as the students must first know what already exists before they can think of carrying out research and peeping into the mysteries of nature. Text-books are made use of but the teacher generally supplements the text-book.

Very little has to be said with reference to the selection of students for advanced study as this problem has to be determined by the teacher at his discretion in consultation with the head of the institution and its management. It is doing more service to the country and to the spread of scientific culture, if the teacher concerned is more large hearted in his choice and is able to provide for a fairly large number.

The equipment of the laboratory and its maintenance is the next problem. A well equipped laboratory is a place where we find things and other conveniences for careful observation and accurate experimentation under specially arranged conditions. There is no definitely worded or set opinion as to the size and shape of the laboratory. It goes without saying that the equipment depends largely on the nature and status of the institution and the number of pupils to work in it. It should contain all apparatus and charts required as per syllabus.

The laboratory should consist of:—1. A store room, 2. a classroom, 3. a work room, 4. a room for the use of the teacher. A room for the use of the teacher is necessary, 1. to facilitate the correction of the laboratory books (observation and record) bestowing concentrated attention on them,

2. the preparation for experiments in advance to be taught in the classes, 3. for keeping a small library of theoretical and practical text books and reference books, 4. the preparation, revision and extension of practical instruction cards, 5. for giving instructions to the laboratory assistant and for the scrutiny and safe custody of the laboratory registers like the stock and breakage registers, 6 for the use of the demonstrator if any and for the conduct of the daily laboratory routine. A special darkroom for high schools for light experiments is also advisable but where this cannot be had the room intended for the teacher can be made use of.

The laboratory should be capable of expansion and modification. There should be ample room to move about. The fittings and furniture should be so planned as to be easily cleaned with the minimum amount of labour. The arrangement of the benches should ensure ease of supervision on the part of the teacher. Each pair of pupils require a minimum of 8 ft. 12 ft. The gangways between the benches should not be less than 6 ft. The laboratory work-table should be of the standard size and specification. The laboratories should be well-ventilated by means of windows which should be fitted up with light tight blinds of the roller shutter type so that any portion of the laboratory can be darkened at will for some light experiments. It is advisable to have water and gas taps fitted to the work-table which must be left unencumbered; in other respects "a place for everything and everything in its place," should be scrupulously insisted on and observed.

Coming to practical work based on the syllabus a list of experiments proposed to be done for the two years is first drawn up. This list is to be revised as often as possible. In drawing up the list provision must be made for a few more experiments to be done by the brighter section in the class. Formal experiments should be avoided. The work should be done in the form of problems significant to the pupils. In large classes it is not possible to give the same experiment to all pupils and even in smaller classes, it entails some malpractices among the pupils. So in most of the schools the rotation system is being followed. A work register is uniformally maintained. All information regarding the nature and quality of work done by the pupils is noted therein. The experiments to be done by the students in the practical class are noted two days beforehand both in the work register and in the work sheet card. Two or at the most three pupils are grouped together for convenience and the same experiment is allotted to them. The prescribed text-books are supplemented by the instruction cards given to the pupils in the practical class for reference. According to the number of pupils the number of experiments to be included in the cycle of rotation is decided upon. Each exercise must be associated with what went before and what is to follow. Time permitting, it is advantageous to hold a preliminary class in which the pupils are instructed with a view to enable them to perform their work with an intelligent grasp. Every effort is made to maintain correlation between the theory and practical work. The system of maintaining record books is to be continued and these are to be checked and corrected at the earliest opportunity. Every effort should be made to carry genuine and honest work and every facility is to be afforded to the intelligent, industrious and sincere student. No encouragement is to be given to the students to be lead away by the surreptitious and catch penny editions of practical guides.

Knowing the experiment two days beforehand he must necessarily come prepared with the work he has to do. The exercise card should contain valuable instruction as

to the conduct of the experiment. Exercise cards should be prepared keeping in view the nature of instruction to be given. The apparatus must be described with a neat sketch if possible in order that it may be handled without loss of time. The use of each part of the apparatus is to be explained to guard against the misuse of delicate instruments. Minute details of manipulation are to be given beforehand without any mistaking. The point at which the observation is to be made and the teacher should be consulted should be indicated. The directions should be neither too elaborate nor too few.

A few words about the observation and record books are needed. Keeping a note book is a valuable aid in the laboratory. The observation made should be stated as also the inferences drawn from these. There should be a statement of what is done, the description of the apparatus and of the steps of procedure; a clearly tabulated statement of numerical results, all calculations and descriptions of the sources of error and their elimination. Drawings of graphs and diagrams should also find a place in these books. All notes belonging to the laboratory should be made in the laboratory itself.

While valuing these note books the teacher should look to a good and legible hand, neatness, a good arrangement of subject matter, correct spelling, grammar and a reasonable degree of clearness and conciseness. He should see that the work is methodically done. In the award of marks the following distribution is suggested.

Apparatus and description	.. 20%
Observations	.. 20%
Calculations	.. 15%
Graphs	.. 15%
Results, inferences	.. 20%
Precision, conciseness, Grammar, spelling and language	.. 10%

Besides regular work there should be practical examinations conducted along with the terminal examinations. In these examinations there should be oral questioning.

THE NURSERY SCHOOL.*

By

Mrs. J. W. Webb.

The nursery school is a little known institution in Southern India. Yet it is an important and necessary step in the mental and physical health of the child.

What is a nursery school? A nursery school is an arrangement for taking care of the child from the age of 3 to the age at which he or she can join school. The infant welfare centre should care for his or her health and education up to the age of 3; the school should undertake this duty at the age of 5 or 6. But there is a gap between the age of 3-6 years during which good and healthy habits might be started which would lay a good foundation for the subsequent school years of training.

At the nursery school the little ones arrive in the morning, they wash themselves under supervision. A cupboard is provided with a labelled shelf for each little one. A clean garment is kept here and each child knows where to find his or her own clean shirt. Help is given where required but 'self help' is the big lesson of the nursery school. The dirty shirt goes into a tub for washing. Some of the bigger children wash their own. So the day's first lesson is 'cleanliness'. Perhaps the next item will be singing. Simple health songs and moral songs are taught and where possible action songs are included since they exercise the little bodies at the same time as the lungs are filled with fresh air for singing. A meal is provided in the middle of the day and the opportunity is taken of inculcating clean and tidy habits of taking food. Children take it in turn-where caste rules permit to serve each other. Each child is responsible for the cleanliness of his or her mug or plate. At some primary schools each parent gives a small monthly fee enabling the school authorities to buy food in bulk cheaply for providing a daily meal. This system can also be adopted at the nursery school where possible. Then follows an interval for rest. When it gets cooler organised games of the very simplest nature are played and the first elements of the team spirit and fair play are inculcated. I have no time to enter into detail of the many activities such as tooth drill, latrine drill, medical inspection and so on.

Now what is the advantage of all this. In the first place a busy mother is relieved from the anxiety of looking after a child who has grown old enough to wander into mischief; in the second place the child is kept from the dirt and danger of the streets. Every normal child enjoys occupation and it is a wise thing to use the normal wish of having 'something to do' in a way that helps the mind and body to grow healthy.

Though it is obviously impossible in these days to start nursery schools as special institutions, yet the principles of these schools can be grafted with ease on the existing child welfare schemes and especially on to the Creche type of Child Welfare schemes and on to the first form curriculum. The twin mottoes of the nursery school are *'a busy child is a happy child, and to teach self help is the first step in education'.*

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*A paper submitted to the 1st Provincial Physical Education Conference, Madura.

INTELLIGENCE TESTS

(Continued from page 277.)

BY

MR. R. M. SAVUR, B.A., (CANTAB).

Instructions to be explained to children in Tamil before issuing booklets.

You will have to answer some questions. These questions have nothing to do with your school lessons. Anyone who can read Tamil can answer them.

You don't have to write the answers. Mostly you will have to find the correct answer and underline it. Read each question and do exactly what the question tells you to do. Most of the answers are ready in the book. All you have to do is to underline the correct word or answer.

Excepting Test I, all the other tests give two examples which show you what to do. Look at these carefully and listen when these are being read out.

When the teacher says "begin" start answering. Work quickly. Begin with Question 1 and go on in serial order. If you do not know the answer to any question skip it and go to the next. Do not waste time on any difficult question. Go on till the teacher says "stop"—then stop immediately.

Do not open this book until you are told. When the teacher says "begin" begin answering. When you find the words "அடுத்த பக்கம் திருப்பு" at the end of a page, go on to the next page without waiting to be told. When you find the word "stop" at the end of a page, then "stop" and do not go to the next page.

If you finish a test before the teacher says "stop" then you revise that test but not any of the previous ones. *e.g.* If you finish Test III before time, revise Test III, but do not see Test II or Test I or Test IV.

If you make a mistake and underline the wrong answer, cross it out and underline the right word. Do not waste time with an eraser. Work as fast as you can. Use pencils only.

If you have any questions to ask, ask them now. After you begin the Test no questions must be asked.

Instructions for administering tests.

Children to be seated far enough apart to prevent copying. For children of IV and V Standard and even Form I, it is better to have one Superintendent for each 10 children for they have difficulty in turning over and finding the correct test. The Superintendents should be on the alert to help the child to turn over a page when he has finished it; to help the child to find the correct test without loss of time; to prevent the child going on to the next test before being told to do so; to prevent the child revising previous tests; to give a child a spare pencil when it breaks the point of its pencil. Therefore some spare pencils should be kept ready at hand.

After the first page has been filled, the Chief Superintendent will say "Turn over or "பக்கம் திருப்பு" Test I. "சொல்லைத் தெரிந்து கொள்வது—ஆரம்பி" Similarly "பக்கம் திருப்பு." Test II .. .. then without pausing for attention he should read the instructions at the head of

each test "இரண்டு வார்த்தைகளுக்கு" etc., up to "கீழே கோடு இழு." Then immediately go on to the உதாரணம which should be read as follows:—பானை, சட்டி—இவை இரண்டுக்கும் ஒரே அர்த்தம். ஆகையால் "ஒரே" என்ற வார்த்தையின் அடியில் கோடு இட்டு இருக்கிறது. and so on till the words இல்லை then say "Now begin or ஆரம்பி"

Similarly Test III. Read Tamil instructions printed at the top till the examples—Then say "உதாரணம். A. சுப்பன், ராமன், கிருஷ்ணன், எல்லாம் ஆண்பிள்ளைகளுடைய பெயர்கள்
பக்கத்தில் உள்ள வார்த்தைகளில்—மாத்திரம் ஆண் பிள்ளைகளுடைய பெயர்கள் ஆகையால் அந்த இரண்டு வார்த்தைகள் அடியில் மட்டும் கோடு இட்டு இருக்கிறது.
similarly with *B*.

Test IV. Similarly, examples to be read.

(1) தெரியும் நீந்த மீனுக்கு—மீனுக்கு நீந்த தெரியும். இவ்விஷயம் உண்மை. ஆகையால் "உண்மை" என்ற வார்த்தையின் அடியில் கோடு இட்டு இருக்கிறது.

(2) உண்டு குதிரைகளுக்கு கொம்பு—குதிரைகளுக்கு கொம்பு உண்டு—இவ்விஷயம் தப்பு. ஆகையால் "தப்பு" என்ற வார்த்தையின் அடியில் கோடு இட்டு இருக்கிறது. ஆரம்பி.

similarly with other tests.

Do not pause anyhere for attention when reading after you say the words "பக்கம் திருப்பு Test ...."

Time.—5 minutes for each of the first six tests and 10 minutes for each of the last three. The five or ten minutes to be counted from the words Test I or Test II etc., as the case may be. The chief Superintendent should not pause for attention as any such delay reduces the time for answering the test. Similarly the instructions should not be read too slowly nor too fast to be intelligible. Roughly for all the tests excepting Test IX, the reading of instructions should not take more than 45 seconds. The reading of instructions for Test IX should not take more than 55 seconds.

N.B. In the case of children of classes 4 and 5, the following departure from the above procedure is recommended after giving the explanations given under "instructions to children in Tamil." The examples worked out in *Tests II and III only* may be put on the B.B. and the children shown what they are to do and how to answer them. Before issuing booklets the B.B. should be wiped clean. The worked-out examples should not be allowed to remain on the B.B. while children are answering the tests.

Instructions for Scoring.

Test I. For correct answers refer to key.

1 mark for each correct answer to each question.

½ mark to be allowed in the following cases:—

Questions.

1. If dot is placed above the sentence instead of above the line at the side.

2. If பத்து is written instead of 10 in the largest square.

3. If all three letters are struck out.

4. Full mark to be given even if the word குறி in the question is underlined or otherwise clearly indicated.

5. Full mark whether answer is 21 or இருபத்து ஒன்று

7. ½ mark if written in words instead of figures.

9. ½ mark if only 8 or only 12 is struck out, or if all even numbers are struck out, or if all numbers above 6 are struck out.

12. ½ mark if the full name of the day is written.

16. If figures are written at the sides of the square instead of corners.

17. Full mark if only the letters corresponding to the code figures are written and others to be guessed or left blank.

Test II.

1 mark for each correct underlining.

In this test some boys are apt to make the following deviations:—

1. Underline the words themselves when they are synonyms; similarly when they are antonyms only.
2. Underlining "ஒரே" only in the case of synonyms and doing nothing with antonyms or vice versa.

Numerous other variations of indicating the right answer will be found. In all such cases it should be seen whether the boy has followed any system in his marking and if he has to consider that the method of indicating the right answer followed by him is right, mark the paper and then from the total deduct one mark for misunderstanding instructions.

Test III.

1 mark for each pair of words correctly underlined. Deduct ½ mark for each word wrongly underlined. *e.g.* If 2 right words and 1 wrong word are underlined then ½ mark.

If all 4 words underlined 0 marks.

If only 1 right word is underlined and the remaining three left blank ½ mark.

No minus marks to be given. In this test too, sometimes boys underline the wrong words throughout and leave the right pair of words blank or strike of the wrong words only leaving the right pairs of words. The boy to be marked as if that were the correct method of indicating the right answer and then from the total 1 mark to be deducted for misunderstanding instructions.

Test IV.

1 mark for each correct underlining. No mark if both "true and false" are underlined or if தெரியாது is underlined.

Test V

1 mark for each correct word underlined. If two or more words in the same brackets are underlined no mark.

Test VI.

1 mark for correct reason underlined. ½ mark if right reason and 1 wrong reason underlined. No marks if all three reasons are underlined.

Test VII.

1 mark for each correct underlining. No marks if two or more answers to the same questions are underlined. Question 20—1|10 mark for each correct substitution of sign for figure.

Test VIII.

Same as Test V.

Test IX.

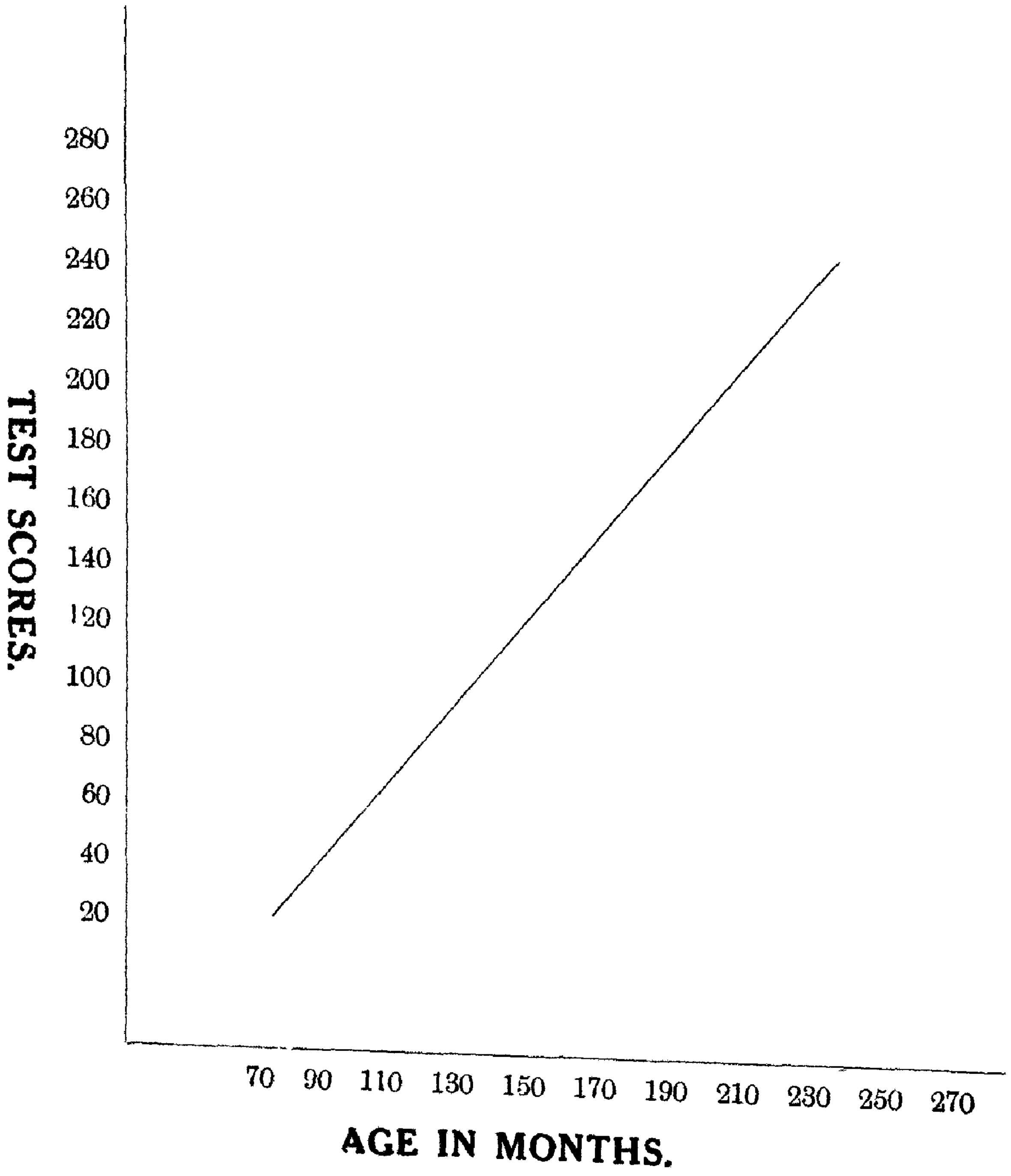
This is the only test which is not quite as objective as it might have been. The scorer will therefore have to be careful. A statement may be absurd in itself or it may be absurd because it contradicts a previous statement. The first is easy to mark. If such a statement is underlined, i.e. if the whole sentence is underlined or only one or two significant words are underlined, then give 1 mark for each such correct underlining. If either of two contradictory statements is underlined 1 mark. Even if both contradictory statements are underlined give only 1 mark as both together make only one absurdity. For instance in the example பெண்கள் may be underlined or ராமன் may be underlined. But both together form one absurdity. So whether one only of the words (or sentences) is underlined or both only one mark should be given.

If any scorer has any doubt about this a correctly underlined and scored paper will be sent to him if he will communicate with me.

Raw scores can be converted into corresponding mental ages by reference to the accompanying table. Mental ages can be converted into I Qs by dividing M.A. by the chronological age also reduced to months and multiplying by 100. The maximum denominator to be used being 192 months.

RAW-SCORE—MENTAL AGE TABLE

Score.	M.A.	Score.	M.A.	Score.	M.A.	Score.	M.A.
40	91	94	128	147	166	200	203
41	91	95	129	148	166	201	203
42	92	96	130	149	167	202	204
43	93	97	131	150	168	203	205
44	94	98	131	151	168	204	206
45	94	99	132	152	169	205	206
46	95	100	133	153	170	206	207
47	96	101	133	154	170	207	207
48	96	102	134	155	171	208	208
49	97	103	135	156	172	209	209
50	98	104	136	157	172	210	210
51	98	105	136	158	173	211	210
52	99	106	137	159	174	212	211
53	100	107	138	160	175	213	212
54	101	108	138	161	175	214	212
55	101	109	139	162	176	215	213
56	102	110	140	163	177	216	214
57	103	111	140	164	177	217	215
58	103	112	141	165	178	218	215
59	104	113	142	166	179	219	216
60	105	114	142	167	179	220	217
61	105	115	143	168	180	221	217
62	106	116	144	169	181	222	218
63	107	117	145	170	182	223	219
64	107	118	145	171	182	224	220
65	108	119	146	172	183	225	220
67	110	120	147	173	184	226	221
68	110	121	147	174	185	227	221
69	111	122	148	175	185	228	222
70	112	123	149	176	186	229	223
71	112	124	149	177	187	230	224
72	113	125	150	178	187	231	224
73	114	126	151	179	188	232	225
74	115	127	152	180	189	233	226
75	115	128	152	181	189	234	227
76	116	129	153	182	190	235	227
77	117	130	154	183	191	236	228
78	117	131	154	184	191	237	228
79	118	132	155	185	192	238	229
80	119	133	156	186	192	239	230
81	119	134	157	187	193	240	231
82	120	135	157	188	194	241	231
83	121	136	158	189	195	242	232
84	122	137	159	190	196	243	233
85	122	138	159	191	196	244	234
86	122	139	160	192	197	245	234
87	124	140	161	193	198	246	235
88	124	141	161	194	199	247	236
89	125	142	162	195	199	248	236
90	126	143	163	196	200	249	237
91	126	144	164	197	200	250	238
92	127	145	164	198	201		
93	128	146	165	199	202		



TEST SCORES.
280
260
240
220
200
180
160
140
120
100
80
60
40
20
70 90 110 130 150 170 190 210 230 250 270
AGE IN MONTHS.

Key

Test I

1 .

2 □ □ [10] □

3 ~~அ~~ ா ~~அ~~

4 குறி

5 21 .

6 ⊙

7 26

8 ம

9 12. 8

10 மைல்

11 இல்லை

12 வெ

13 பலம்

14 கல்

15 11 or eleven in words.

16 4 3 / 1 2

17 4

18 (ஆம்)

19 சி, நீ, சி, நீ

20 வந்து வாங்கிகொள்ளும்

Test II

	ஒரே	எதிர்
1		——
2		——
3	——	
4		——
5		——
6		——
7	——	
8	——	
9		——
10	——	
11		——
12		——
13	——	
14		——
15		——
16	——	
17		——
18	——	
19	——	
20		——
21		——
22		——
23	——	
24		——
25	——	
26		——
27		——
28	——	
29		——
30	——	
31	——	
32		——
33		——
34	——	
35	——	
36		——
37		——
38	——	
39		——
40		——
41		——
42		——
43		——
44	——	
45	——	
46	——	
47	——	
48	——	
49		——
50		——

Test III

1 ஏழு—ஒன்பது—

2 கொய்யா, சீத்தா— —

3 — — குதிரை. பசு.

4 காமாட்சி — ருக்மணி —

5 அப்துல்லா, பொன்னன் —

6 செவ்வாய் — — சனிக்கிழமை

7 — — புறா. கிளி.

8 அரளி, முல்லை, — —

9 தார் — — கரும்பலகை

10 — — கட்டில், அலமாரி

11 — அரிவாள், கொடுவாள் —

12 சுண்ணும்பு — வெள்ளை —

13 — தலைப்பாகை, சொக்காய் —

14 கம்பு — கோதுமை —

15 — வைரம் — சிவப்பு

16 மோட்டார் — — ரேக்ளா

17 டிராயிங் — — பூகோளம்

18 ஈயம் — — செம்பு

19 தீபம் — தீவட்டி —

20 பாயாசம் — — சர்க்கரை

21 பலம் — — வீசை

22 — வேல் — வாள்
23 நாள் — ஜாமம் —
24 வண்டு — மண்டு—
25 — அன்பு, விரோதம் —
26

Test IV

	உண்மை	தப்பு
1	—	
2		—
3		—
4	—	
5		—
6	—	
7	—	
8		—
9		—
10	—	
11	—	
12		—
13	—	
14		—
15	—	
16		—
17	—	
18	—	
19		—
20		—
21	—	
22		—
23	—	
24	—	
25	—	

Test V

1 வெண்மையாக. கருப்பாக
2 பட்சமுள்ள, ஒருபோதும்
3 உஷ்ணமாக. மாரிகாலம், குளிர்ச்சியாக
4 குளத்தில். வலை
5 எப்போதும் சிலசமயம். சிலசமயம்
6 எப்போதும், சிலசமயம், வழக்கமாக
7 மனைவியோ, தகப்பனுடைய
8 எதிரிடையோ. தன்மை
9 எழுத, கோடரி
10 பெண், பெற்றோர்
11 மடுவிற்கும், குட்டைக்கும்.
12

1	தோல்	6	கட்டில்
2	எலி	7	குண்டு
3	யானை	8	முடிவு
4	மயிர்	9	சோம்பல்
5	இருட்டு .		

Test VI

1	Reason	2	11	Reason	3
2	,,	2	12	,,	1
3	,,	3	13	,,	2
4	,,	2	14	,,	2
5	,,	2	15	,,	2
6	,,	3	16	,,	3
7	,,	2	17	,,	1
8	,,	3	18	,,	2
9	,,	5	19	,,	1
10	,,	3	20	,,	3

Test VII

1	— கோவிந்தன் —	12	— 4 — —
2	ஜெயம் — —	13	— — 8 —
3	— அல்ல —	14	வடக்கு — — —
4	— வெள்ளி —	15	மார்கழி 28 — —
5	— ராமன் —	16	— — 6 மணி —
6	— இரண்டு —	17	மூன்சக்கரங்கள்—
7	— இராமன் — —	18	— லீலாவதி —
8	— கோபாலன் —	19	— — — 3 —
9	ஜானகி — —	20	1 mark for every 10 correct substitutions
10	— அல்ல —		
11	— — — மேற்கு		

Test VIII

பகுதி றூர்கள் பெண்கள்
விளையாடுவார்கள் பள்ளிக்கூ-
டத்திற்கு படிப்பார்கள் பிள்ளை
கள் கற்றுக்கொள்ளுகிறார்கள்
படிப்பது கடினமாக பெரியவர்கள்
பள்ளிக்கூடத்தை வேலைசெய்ய
சக்திக்கு வித்தியாசமான
அநேகமாதிரியாக சுகமாக
மூடமான வித்தியாசமாக
அதிர்ஷ்டமானது
உலகத்தில் வேண்டியிருக்கிறது
அன்னமும் மாமிசமும்
வளர்க்கவேண்டும் விவசாயிகள்
பஞ்சும் சேகரித்து உஷ்ணம்
தையல்காரிகள் தையற்காரர்கள்.
ஆடை உண்டாக்க வீடுகள்
கொத்தர்கள் வியாதி வைத்தியர்கள்.
தொழில்கள் வெவ்வாறு
இல்லாவிடில் ஒரேவிதமான
சாமர்த்தியமும் எங்களுக்கு
விரோதமான மனிதர்களால்
சாத்தியமோ தேட புத்தி
புத்தியுள்ள தையல் வேலையில்
தையல் வேலை இயந்திர இஞ்சினீர்
கணக்கு பாங்கியில்
எழுத எழுத்துக்கூலிகள்
தவறிவிடும் ஆசிரியர் ஆவதற்கு
சாமர்த்தியத்திற்கு க்ஷேமத்திற்கு ஒன்றும்.

GLEANINGS

SCHOOL DISCIPLINE

A recent correspondent to "The Teachers' World" states that she finds her class discipline unsatisfactory, and asks for advice. The reply sent to her may be useful to South Indian teachers who find themselves faced with a similar difficulty. It analyses the possible causes of indiscipline as well as making some concrete suggestions, as follows:—

At the root of the indiscipline *may* be:—

a. Uninteresting lessons.

b. Punishment that has been deterrent rather than remedial.

c. A policy which aims to mould all children to the same pattern.

d. The practice of treating all faults as of equal magnitude.

e. The lack of outlet for the activities of the more active of the pupils in the class.

f. A lack of sympathy for the general welfare of the pupils, or

g. The failure of the scholars to catch the spirit and tone of the school.

SUGGESTIONS

A. Introduce the team system into your class. Make the more awkward or unruly of your pupils captains and vice-captains of the teams. Give each team marks for punctuality, attendance, games and conduct.

B. Give those who are disturbing elements other posts of responsibility e.g., let them be responsible for the adding of the marks earned by their teams, for collecting books and materials, for marshalling teams into lines at playtimes, for arranging team matches between different groups of pupils.

C. Get to know your pupils outside the classroom. Be ready to talk with them at any time on things which concern them in their leisure hours. Help them with their hobbies (if they have any). (From "The Education Gazette" dated 1st July 1932.)

NATURE STUDY

We reproduce below from the *Education Gazette* of N. S. Wales, the following instructive extract from the inspection report of Mr. C. E. Hicks:—

Teachers continued to stultify their efforts in the treatment of this subject, by too close an adherence to the imparting of information, with consequent submersion of the individual pupil, instead of placing the responsibility directly upon him in the development of self-activity through observation and experiment, no other subject, perhaps, giving similar scope for such development. The immediate school surroundings are too often disregarded in the selection of suitable media for direct study and observation, and excellent opportunities are allowed to pass unnoticed and unexplored.

Nature Study lessons are still given within doors when natural surroundings provide all that is necessary in material, natural setting, scope for observation and experiment and development along approved natural lines. The lines of Wordsworth expressed thus: "Come into the light of things; let nature be your teacher" should be taken to heart and accepted realistically by each teacher with respect to treatment of nature study.

In many schools the selection of the syllabus dealing with domestic animals is too readily chosen to the exclusion of other features.

Much development has been seen in the school garden in this district this year, but a more systematic correlation between the garden plots and nature study lessons would be desirable.

So, too, with nature study museums; while one finds many commendable examples, other schools are bare of anything of the kind and in these there is little tangible evidence that nature study is of real living significance in the lives of the pupils and that its influence is felt in experimental and expressional activities throughout the school.

FROM OUR ASSOCIATIONS

THE RAMNAD DISTRICT TEACHERS' GUILD ANNUAL CONFERENCE 1931-1932.

The Annual Conference of the Ramnad District Teachers' Guild was held on Saturday, the 6th August 1932, at Madura in Sri Gopal Mahal at 3-30 P.M. The president of the Guild Mr. N. Chakravarti Iyengar, B.A., L.T., presided and delegates attended from eight centres—Sattur, Rajapalayam, Virudhunagar, Paramakudi, Ramnad, Sivakasi, Karaikudi and Tiruppattur. Mr. G. Damodara Mudaliar, the District Educational Officer, Ramnad, was present. Before proceeding with the business of the conference, the President heartily welcomed the District Educational Officer to the conference. Then Mr. Damodara Mudaliar gave an instructive and inspiring address.

After a few preliminary remarks from the President, the Annual Report was read by Mr. S. Dandapani Iyer, the Secretary and the Report was unanimously adopted. The salient features of the Report are: (1) The number of affiliated associations decreased to 16, and the number of individual members to two. (2) Five associations and three members were disaffiliated because of long-standing arrears of Rs. 141 which were written off and present arrears come to Rs. 27. (3) The receipts amounted to Rs. 139-9-0 with an opening balance of Rs. 54-9-0 and subscriptions of Rs 85 (4) The charges aggregated to Rs. 125-11-6 leaving a closing balance of Rs. 13-13-6. (5) Two new associations were affiliated and two more were re-affiliated during the year.

The budget was next presented and agreed to. The election of office-bearers came next when Mr. N. Chakravarti Iyengar, B.A., L.T., was re-elected as President and Mr T. S. Venugopala Iyer, B.A., L.T., and Mr. S. Dandapani Iyer, B.A., L.T. (Sattur), as Secretaries

The Annual Conference terminated with a vote of thanks to the District Educational Officer, the President and to Mr. E. M. Gopalakrishna Kone, who besides placing his "Mahal" at the disposal of the conference, kindly treated all the delegates and visitors to a hearty lunch.

N. Chakravarti Iyengar, B.A., L.T.,
President.

T. S. Venugopala Iyer, B.A., L.T.,
S. Dandapani Iyer, B.A., L.T.,
Secretaries.

Sattur,
9th August 1932.

THE MADRAS PROGRESSIVE UNION

The Golden Jubilee of the Madras Progressive Union was celebrated with eclat on the 8th inst. with the Rt. Hon'ble V. S. Srinivasa Sastry presiding. The Secretary of the Union, read the report of the Union which is a record of progress from very humble beginnings. Started early in 1880 as a mere literary union, it took up in 1882, the education of a handful of boys. To-day the Union is successfully managing a large middle school. The annual prize distribution of the school also came off the same day.

THE ST. GABRIELS' HIGH SCHOOL

A new Hall, to accommodate over 150 pupils was added to the existing buildings of the St. Gabriels' High School. On the 29th July His Grace the Most Reverend Dr. E. Mederlet, S.C., Archbishop of Madras, the patron of the school, blessed the new Hall and formally opened it.

THE SECONDARY GRADE TEACHERS' ASSOCIATION

Under the auspices of the Madras Secondary Grade Teachers' Association, Mr. G. Srinivasachari, Assistant, P. S. High School, Mylapore, delivered an interesting lecture on "Religious and Moral Instruction in Secondary Schools." Prof. D. S. Sarma, Lecturer in English, Presidency College, Madras, presided.

EDUCATIONAL NEWS BULLETIN

[Issued under the auspices of the All-India Federation of Teachers' Associations by the Association of Editors of Educational Journals, 41, Singarachari Street, Triplicane, Madras.]

No. 8 August 1932.

PUNJAB.

Arrangements for the holding of the 8th conference of the All-India Federation of Teachers' Associations at Lahore are being made. The Secretary of the All-India Federation of Teachers' Association has already circularised secretaries of the affiliated associations calling on them to send their first nomination for the presidentship of the conference.

The assistant secretary of the Punjab Geographical Association, took a party of about 36 students to Kangra, Dharmasala and Mandi Hydro Electric works. The tour lasted 5 days, 12th to 17th May, 1932.

DELHI

It is understood that in the month of june several bungalows situated in the old Viceregal Estate have been handed over to the authorities of the Delhi University. The Law college and its hostel have been shifted to the viceregal Estate. It is understood that the question of the other constituent colleges, moving out to the estates is engaging the attention of the authorities.

Acting on the recommendation of the superintendent of Education, the New Delhi Municipality have decided to raise their Girls' middle school to a high school.

UNITED PROVINCES

Universities Committee Report.—This is now out. It recommends that the Vice-Chancellor may either be honorary or be paid such remuneration as may be determined. This recommendation expresses the view that the University should not be bound down to one course and the law should be elastic. It is remarkable that the note of dissent sent in by Dr. Ganganath Jha, the present Vice-Chancellor of the Allahabad University protests against the proposal that the Vice-Chancellor should be honorary. It also argues in a very dignified manner that if the Bar should run the High Court teachers should run the University. This is a reply to the clamour of non-teachers who think that there are too many teachers on the governing bodies of the Universities and a very telling reply too.

Untrained teachers.—In 1927 the Department of Education issued a circular that those teachers who were on permanent staff before December 1926 would be considered trained for purposes of employment. This was the result of agitation carried on by teachers' conferences during the previous 5 years. The authorities had told the managing committees of Anglo-vernacular schools that trained teachers alone should be employed. This had led to the situation that if an untrained permanent teacher had had to sever his connection with the school where he was employed he had no chance of getting another permanent employment elsewhere because he was untrained. The Department tried to solve this difficulty by issuing the circular of 1927. Now this solution was certainly no solution at all. And

the U. P. Secondary Education Association had, year after year, at its annual conference adopted resolutions suggesting several ways out of it. So far, the Government had not agreed to any one of them finding one flaw or other in every one of them. The main contention of the Association was that either the untrained teachers should be allowed to appear at the Training College examination as private candidates or they should be awarded some sort of certificate. The Government felt that unless teachers worked under the supervision of training college teachers for the full term of nine months no certificate could be given nor could they be allowed to appear as private candidates. Now it is reported that after due deliberation the Government has arrived at the conclusion that teachers who were on permanent lists till 1930 should be exempted from training and certificate to this effect will be given individually to all such persons; and that those who have been in service since 1930 onwards would be asked to give 12 lessons at the training college, would be exempted from the theory examination and would be awarded a newly created certificate of A.T.C. (Acting Teachers' Certificate). It is hoped that if really all this comes true it would be very much welcomed by everybody concerned

Games Teachers allowance.—Sometime back the D. P. I. had caused a sensation here by his circular that no allowance should be given to games teachers out of the Games funds. In private schools games teachers had been getting an allowance of Rs. 5 or 10 for the extra work of supervising and arranging the games. The Government schools had a grievance in this respect for there no such allowance was given. It is understood that the D.P.I's circular referred to was issued in response to an appeal by Government school teachers asking for the allowance. The circular of the D.P.I. was very much resented and the columns of *The Leader* were almost daily flooded in with representations and resolutions of branches of the U.P. Secondary Education Association all over the province. Whether it was the effect of the pressure of the agitation or the result of the usual due deliberations, the Government have now ruled that the allowance that may be given to Games teachers may be between Rs. 15 to 25 .

Lucknow University.—Dr. R. P. Paranjpe, Ex-Principal of the Fergusson College, Poona, (1902-1920) the Minister of Education, Bombay Government (1920-1923), and a member of the India Council, London, (1927-1932) is by the Executive Council of Lucknow University, unanimously elected its Vice-Chancellor in place of Pandit Jagath Narain, who has resigned.

BENGAL

1. The Senate of the Calcutta University has passed the New Matriculation Regulations. The most important innovations are:—

(i) making Physics and Chemistry compulsory after first five years;
(ii) making vernacular as the medium of instruction and examination in all subjects except English;
(iii) providing separate syllabus of studies for girl students;
(iv) opening a register for teachers of English;
(v) making Physical instruction and Vocational training compulsory; and
(vi) abolishing age restriction.

The Regulations now require the sanction of Government which, it is expected, will be obtained.

2. Indian State Broadcasting Service at Calcutta has arranged for educational lectures by well-known educationists for School and College students.

3. Government has effected a 10 p.c. cut in grants to Schools and Colleges.

4. Calcutta University has offered the Chair of Bengali Literature to Dr. Rabindra Nath Tagore, which the Great Poet has accepted.

5. It is understood Lt.-Col. Sir Hasan Suhrawardy, the present Vice-Chancellor has been re-appointed Vice-Chancellor for another term of three years.

BOMBAY

The annual convocation of the University of Bombay is to be held on the 17th of August when Sir C. V. Raman is requested to address the new graduates. As usual the Syndicate has published its annual report to be submitted on this occasion. If all the graduates (Bachellors and Masters) of the last examination season present themselves for receiving their degrees they will make a small crowd of 1800 persons ready to launch their ship of life into the world which is every day assuming a more threatening aspect. Of them 1,821 will be B.A's, 323 B.Sc's., 224 LL.B's, 75 B.T's., 46 B.Com's., 66 B.E's., and 68 M.B.B.S's. Of the rest 75 will be M.A's., 19 M.Sc's., 6 M Ag's., 1 M.E., 2 LL.M's., 4 B.Hy's., 3 M.D's., and 6 M.S's This shows great progress during the last ten years but in its annual output of graduates Bombay is probably still behind Madras and Bengal.

At the last Matriculation examination, of the 15477 candidates registered 5806 or 37.5 per cent passed. Last year the percentage of passes was 57.2. This University allows candidates at the Matriculation to answer their (Indian) classical language and history papers in their mother-tongue. This permission was first granted in 1926 and advantage of the option is taken by the students every year in increasing numbers. The figures for the last examination are given below.

The organisation of Post-graduate instruction and research has been for some time past a much debated problem. That Post-graduate work needed greater super-

Subject	Total appeared	Number of candidates who answered in								
		English	Mother tongues	Marathi	Gujarati	Kannada	Urdu	Sindhi	Portuguese	Hindi
Sanskrit ...	3574	962	2612	1728	712	170	...	...	...	2
Pali ...	23	6	17	16	1	...	...	...	...	...
Persian ...	1141	1045	96	...	67	...	18	11	...	...
Arabic ...	35	25	10	...	...	10	...	...	...	...
History ..	15252	5196	10056	4601	3594	564	39	1245	2	11

N.B.—Candidates can answer their papers only in the recognised languages of the Presidency and they are the seven mentioned above.

vision and guidance every body accepted but opinion widely differed on how this could be achieved. Some suggested the usual method of affiliation even for Post-graduate work; others held that affiliation for Post-graduate purposes was not contemplated under the new Act and that the University could control Post-graduate work only by recognising qualified persons to do the work. A reference was made to the Chancellor and his ruling has been in favour of the latter group. An army of University Teachers (about 225 out of a total of about 550 college teachers) are recognised in all parts of the Presidency and many more will be added to the list when the names of University Teachers in Medicine are announced. This means practically every one who was doing some kind of Post-graduate teaching in the past will hereafter have the new designation of "University teacher". Whether this mere change in designation brings about the desired improvement or whether it only tends to create a new division among Professors and proves a source of friction can be ascertained only with the lapse of time.

The political conflict in the country is to some extent noticed in Local Bodies where elections are often held with candidates flying political colours. And whenever the Congress party has the majority, trouble peeps its head up although it must be admitted to the great credit of both the Local Bodies and Government, that this has seldom presented itself in an acute form. One of these rare cases is that of the Municipality of BROACH. It seems in 1930, not liking the ways of the Municipality Government withheld its grant in aid for education and the Municipality in its turn retaliated by not paying the teachers for about ten months. It is difficult to distribute the share of guilt. Both the Municipality and Government are probably wrong and in their fight the innocent teachers are being crushed.

MADRAS

1. The special conference of the Madras University to confer honorary Doctorate degree was held on the 3rd August. His Excellency, Sir George Frederick Stanley, presided.

On the following day the annual convocation of the University was held. The Hon'ble Dewan Bahadur. S. Kumaraswami Reddiar, B.A., B.L., M.L.C., Minister of Education and Prochancellor of the University of Madras delivered the convocation address. His Excellency the Chancellor presided.

2. The teachers in the employ of the corporation of Madras are running an Educational camp at Red Hills on the 13th and 14th instant. Mr. D. S. Reddy, Deputy Director of Public Instruction (Elementary Education) is the camp officer.

3. Sir, C. V. Kumaraswami Sastri, it is understood has been requested to deliver the convocation address at the coming convocation of the Mysore University.

4. It is understood that the Director of Public Instruction, Madras, is not in favour of permitting withdrawals from the Provident Fund account of teachers employed in aided schools for paying the premia on life policies. The Director, it is said, is of opinion that it will lead to several difficulties as the scheme of Provident Fund for teachers in non-government aided schools is different from the General Provident Fund, from which withdrawal for such a purpose is permitted.

5. The Mysore Government is reported to be contemplating a big reduction in their annual contribution towards the Indian Institute of Science, Bangalore.

THE TEACHERS' BOOKSHELF

Elementary Science in Tamil; for High Schools. Volumes I and IV. by R. Dharmiah, B.A., L.T., Science Assistant, Board High School, Kulittalai, and A, Narayanaswami, B.A., L.T., Science Assistant, Board High School, Musiri. (Price Annas 13 and 12 respectively.)

It is remarked that the Elementary Science syllabus of our S. S. L. C. course is very heavy and ambitious and yet on careful examination, science teachers are unable to agree on any possible reduction in the content of the syllabus. It appears very likely that much of the strain complained by teachers is caused by the use of a foreign medium in the teaching of this interesting subject. One of the main difficulties in adopting the medium of the mother-tongue in teaching elementary science is the absence of a set of standard technical terms. The Departmental committee on vernacular terms is yet to publish its terms. Teachers too are not enterprising enough to put their heads together to undertake the task. Thus while facilities for the teaching of the other school subjects e.g, History, Geography, Elementary Mathematics, etc., are available, it is the science teacher that is left alone without help.

Messrs. Narayanaswami Iyer and Dharmiah have done much pioneering work and these two volumes show that they have taken infinite pains in preparing the books in comformity with the revised syllabus. The tamil terms used are in many cases simple and explanatory though it would have been advantageous, in certain cases, to incorporate the English term instead of unearthing some strange or unfamiliar tamil words. The language used is simple, devoid of pedantry, the illustrations are neat, and the printing good. We wish the authors all encouragement and await the publication of the other two volumes, now reported to be in press.

Elementary Science, Physics and Chemistry. by Messrs V. N. Viswanatha Iyer, M A., L.T., and P. A. Narayana Iyer, M.A., L.T., Publishers Messrs. Srinivasavaradachari & Co., 190, Mount Road, Madras. (Price Rs. 1-4.)

This is the second edition of the book. The first edition was issued in parts a year ago and was reviewed in our columns. We are glad to note that in this edition most of the defects apparent in the last edition have been rectified; particularly, the illustrations have been considerably improved, very useful appendicess, eleven in number, have been added at the end of the Physics part. In the last edition, Hartl's Optical Disc, was included in the body of the book, most of the experiments in light being described in relation to it. We now find its description is given as an appendix with a suggestion that all schools should own this very useful piece of apparatus. The publishers claim that they have improved the get up of the book. But a book which was to be in the hand of young boys for three years, and which contains 400 pages, should have a better bind. The paper used too could easily be superior, without affecting the cost very much.

Durgadas, The Rahtore. Messrs. Macmillan & Co,. Ltd., PP. 108. Price not stated.

Thanks to Aurangazeb's policy, the history of the Rajputs during his reign is full of instances of heroism displayed under very exciting circumstances bringing out clearly the chivalry of our Rajputs. The story of Durgadas is interesting and soul stirring. His utter fearlessness in the face of danger, the astonishing purity of his private life, his almost suicidal magnanimity towards a yielding or fallen foe, his devotion and loyalty to his master, all make him a great hero, a hero fit to be worshipped and held as a model to the rising generation. Aurangazeb himself once exclaimed, 'Ah! what selflessness, what loyalty, what nobility! It is no wonder that the whole of Rajasthan loves him and obeys him so utterly' His story, of how, after a long struggle he succeeded in preserving and placing on the throne, Ajit, the son of Jaswant, Rana of Marwar, is narrated in simple style. The narration is thrilling and we are sure will rouse the better instincts in our boys and girls when they read this book. It can well be placed as a supplementary reader in the hands of the pupils of the upper forms of our high schools.

A Geography of the World, in Tamil by S. A. Subramania Aiyar, B.A., L.T., and T. S. Ananthanarayana Aiyar, B.A., L.T, Published by T. G. Gopala Pillai, Teppakulam, Trichinopoly.

Book I The Southern Continents	As. 14.
Book II Part I North America	As. 6.
Part II Eurasia	Rs. 1-4-0.

We welcome this new publication which has been written by two teachers according to the A Group syllabus is Geography. That the first two books have already been approved by the text book Committee (Madras) is sufficient indication of their fitness to be text books in our schools.

The matter given is sufficient, the maps need no addition. It would be a good thing if the graphs of rainfall and temperature are in the body of the text when the particular region is talked of and not together at the end of the book as arranged at present. We hope some scenes of human activity and natural vegetation in the different parts of the world would be added in the next edition. The essential features of the book have been pointed out by Mr. K. Rangaswamy Aiyangar in his foreward to the book. "The authors have taken care to present all the essential features in simple language avoiding technical expressions. The individuality of human life in every region has been kept in view. Suitable exercises have also been set at the end of every chapter which though not exhaustive will surely serve as models."

"The Elements of Algebra." (The Three Authors' Algebra) revised by Mr. N. Panchapagesa Iyer, Lecturer, Findlay College, Mannargudi, and published by Messrs. Srinivasa Varadachari & Co, Madras, is an exhaustive treatment of the syllabus for Optional Mathematics in the Madras and Mysore School Leaving Certificate schemes The subject-matter has been developed in a gradually progressive manner. The explanations are clear and lucid and take the reader step by step to the end so that the students can easily take up to an independent reading of the book It is a well-known psychological maxim that the students must not be allowed to struggle with new matter unless the ground has been previously covered or until at least the author has provided sufficient antecedents to offer them clues. This has been achieved by the author who has brought to bear his wide experience on the proper selection of the illustrative examples. The exercises set for the students' work are numerous and well-graded and we are sure they will have no difficulty in grasping the principles of the subject.

The concentric development of the topics, the ample scope for oral work and the author's carefulness to cover every necessary ground whenever a new model or change of principle is to be introduced; these are some of the special features of the book.

We would, however, like to suggest that the transition from Simple to Simultaneous Equations may be more gradual and that the treatment of the latter chapter less formal. The chapter on "Straight Line Graphs" may with advantage be correlated with the solution of Simultaneous Equations and problems leading thereto and the approximate nature of the solutions obtained by graphical work may be drawn attention to.

The book contains more than 550 pages. It is priced at Rs 2.

We commend this book to the attention of teachers as a suitable text-book to be placed in the hands of our High School pupils.

Macmillan's Easy Stories from English History, Price As. 12.

This text book for the primary grade (136 pages) contains 25 stories printed in bold types. Most of them are old favourites like Alfred as harper, Canute by the sea shore, Loss of the Whiteship, Wild Prince Hal, The Great Fire of London and Miss Florence Nightingale. The stories are wirtten in such a style as to render them suitable for children beginning to read English History. This book would serve to excite interest in the lives of some famous men and women. There are several good illustrations, many of them being photographs from pictures by great artists.

Commercial Correspondence. By T. V. Subramania Aiyar Published by Messrs Srinivasa Varadachari & Co, 190, Mount Road, Madras, Price Rs. 1-8-0. 336 pages.

The book is prepared in accordance with the syllabuses in Commercial Correspondence for the Madras S. S. L. C. examination and the Government Technical examinations of Madras and Mysore. The language of the book is clear and simple The syllabuses in the subject for the several examinations have also been printed. There is also a chapter on common Commercial terms and abbreviations and also three appendices on Postal and Telegraphic information, Specimen forms and Select questions from different examinations. Since the work has been revised enlarged and brought up to date, ths edition will prove a very useful and welcome addition to the existing commercial literature.

S. I. T. U. PROTECTION FUND

LIST OF MEMBERS (*Continued.*)

900 Mr. T. S. Radhakrishnan, Headmaster Bd. H. Ele. School, Gobichettipalayam.
913 „ M. Marichami Naidu, Teacher, Kallar School, Kulayanur, Madura Dt.
914 „ K. N. Chellamuthu Pillai, Teacher, Kallar School, Bodinayakanur,
915 „ J. Subramanian, Assistant, Municipal H. Ele. School, Coimbatore:
916 „ S. Natesan, Assistant, Municipal High School, Coimbatore.
917 Mrs. T. Karthiyayini Ammal, Bd. Girls School, Trichengodu.
918 „ S. Ponnumani Ammal, Bd. Girls School, Trichengodu.
919 Mr. S. Ranganatha Rao, Assistant, M T. Ele. School, Karur.
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922 „ A. Venkatarama Iyer, Assistant, San Thome H. School, Mylapore, Madras.
923 „ K Eswariah, Drawing master, Bd. High School, Kandukur, Nellore Dt.
924 „ D. Ramakrishna Sastry, Teacher, Bd. High School, Kandukur, Nellore Dt.
925 „ R Srinivasa Iyer, Asst., T. T. V. High School, Madras.
926 „ S. Ramamurthy, Asst., T. T. V. High School, Madras.
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930 „ M. S. Tyagaraja Iyer, Assistant, National High School, Negapatam.
931 „ S. Swaminatha Sastri, Sanskrit Pandit, National High School, Negapatam.
932 „ C. R. Subramania Sastri, Assistant, M. H S. Pollachi.
933 „ C. M. Venkatanarasinga Raso, Assistant, Bd. High School, Namakkal.
934 „ A. M Venkataramana Iyer, Board High School Namakkal.
935 „ D. Purushottam, Asssistant, Bd. High School, Chittoor
936 „ S. K. Venkatramier, Drawing-master, Bd. H. School, Satyamangalam.
937 „ T. K. Sundaram Iyer, Headmaster, St. P. East Gate School, Tanjore.
938 „ T. R. Ramanatha Iyer, N. C. Aryan Secondary School, Trichinopoly.
939 „ K. R. Sundaramurthy Iyer, Asst., M. High School, Pollachi.
940 „ A B. Gundachar, Physical Training Instructor, Hindu Theological High School, Madras.
941 „ C. S Ramiah, Science Assistant, Hindu Theological High School, Madras.
942 „ T K. Malhari Rao, Assistant, Hindu Theological High School, Madras
943 „ T. S. Subramania Aiyar, Assistant, Hindu Theological High School, Madras.
944 „ V. Venkatakrishna Iyengar, Asst, M T. Ele. School, Erode .
945 „ K. Hanumantha Rao, Assistant, Municipal High School, Ananthapur.
946 „ M. Appu Rao, Assistant, Municipal High School, Ananthapur
947 „ C Bheemacharlu, Assistant, Municipal High School, Ananthapur.
948 „ T. R Ananthasingaracharya, Kanarese Pandit, Municipal High School, Ananthapur.
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952 „ A. Narayana Rao, Clerk, Municipal High School, Kurnool.
953 „ K. Achtharamiah, Clerk, Municipal High School, Kurnool.
954 „ D. S. Raghavendra Rao, Physical Training Instructor, M H. S., Kurnool
955 „ H. Krishnamurthy, Assistant, Municipal High School, Kurnool.
957 „ K. Narayana Rao, Assistant, Municipal High School, Kurnool.
958 „ P. V. Subbiah, Assistant, Municipal High School, Kurnool
959 „ V. A. Pattabirama Iyer, Drawingmaster, Hindu Secon. School, Velur, Salem. District.

960 „ B. Kalyanasundaram, Assistant, Hindu Secon. School, Velur, Salem. District.
961 „ T. N. Ramadurai Iyer, First Assistant, Hindu Secon. School Velur, Salem, District.
962 „ P. K. Muthukrishan, Drawing-master, Municipal Middle School, Coimbatore.
963 „ M. G. Kuppuswami, Assistant, Municipal Middle School, Coimbatore.
964 „ K. A. Ramalingam, Assistant, Municipal Middle School, Coimbatore.
965 „ K. Palanivelayutham Pillai, Asst., Municipal High School, Coimbatore.
966 „ S. Padmanabha Iyer, Com. Instructor, Sourashtra High School, Madura.
967 „ S. Sankara Iyer, Assistant, Sourashtra High School, Madura.
968 „ G. Ramakrishna Iyer, Assistant, Sourashtra High School, Madura.
969 „ G. Sundaram Iyer, Assistant, Hindu Theo., High School, Madras.
970 „ N. Munuswamiah, Assistant, Hindu Theo., High School, Madras.
971 „ T. S. Suryanarayanan, Assistant, Hindu Theo., School, Madras.
972 „ C. V. Gopala Iyer, Assistant, Hindu Theo., High School, Madras.
973 „ V. Y. Srinivasaragavachari, Asst., Hindu Theo. High School, Madras.
974 „ D. Narasimhachari, Assistant, Hindu Theo. High School, Madras.
975 „ K. Ramanatha Iyer, Assistant Hindu Theo. High School, Madras
976 „ T. E. Krishnamachari, Assistant, Hindu Theo. High School, Madras.
977 „ A. R. Srinivasa Iyer, Assistant, Hindu Theo. High School, Madras.
978 „ M. Ratnavelu Pillai, Assistant, Board High School, Ayyampet.
979 „ S. Varadakrishnamachari, Assistant, Board High School, Ayyampet.
980 „ T. N. Arjuna Iyer, Assistant, Board High School, Ayyampet.
981 „ V. Lakshmana Iyer, Assistant Board High School, Ayyampet.
982 „ A. Venkatarama Iyer, Assistant, Boys Bd. School, Singampumari, Ramnad, Dt.
983 „ K. V. Venkataramaniah, Assistant, Bd. High School, Markapur, Kurnool, Dt.
984 „ B. Ramachandra Rao, Assistant Bd. High School, Markapur, Kurnool, Dt.
985 „ K. V. S. Sarma, Physical Training Instructor, Hindu High School, Madras.
986 „ K. S. Peter, R. C. Boarding and Training Institute, Trichinopoly.
987 „ John Chari, R. C. Boarding and Training Institute, Trichinopoly.
988 „ A. Mariananthan Pillai, R. C. Boarding and Training Institute, Trichinopoly.
989 „ N. S. Venkatrama Iyer, R. C. Boarding and Training Institute, Trichinopoly.
990 „ M. A. Swayamprakasa Udayar, R. C. Boarding Institute, Trichinopoly.
991 „ K. Chakrapani Iyer, R. C. Boarding and Training Institute, Trichinopoly.
992 „ M. Krishnamurthi Iyer, R. C. Boarding and Training Institute, Trichinopoly.
993 „ S. Sundaresan, R. C. Boarding and Training Institute, Trichinopoly.
994 „ T. S. Rajagopala Iyer, Assistant, Municipal High School, Ananthapur.
995 „ S. N. Subbiah, Assistant, Board High School, Namakkal.
996 „ M. Lakshmi Narayana Sarma, Asst., Board High School, Koilkuntla.
997 „ A. Venkatachariar, Assistant, Board High School, Sholavandan.
998 „ D. Narasimha Sastry, Assistant, Municipal High School, Ananthapur.
999 „ S. Venkatasubba Rao, Assistant, Municipal High School, Ananthapur.
1000 „ K. Narasimha Rao, Lecturer, Christian College, Madras.
1001 „ N. Venkoba Rao, Assistant, Municipal School, Ananthapur.
1002 „ S. Ramaseshagiri Rao, Municipal High School, Ananthapur.

N.B.—There are about sixty vacancies due to removals. The Admission Committee will consider applications from persons within 30 years of age, to fill up these vacancies.

Triplicane,
12-8-32.

R. RAMAKRISHNAN,
Hon. Secretary.

THE S. I. T. U. WORKING COMMITTEE

Ameeting of the above Committee was held on Sunday the 21st August 1932 at 2 p.m., in the Office of the S. I. T. U.

The following resolutions were adopted:

1. That the District Guilds in arrears from 1929 onwards be called upon to pay their dues at least in 3 instalments before the 1st of December 1932, including the current subscription, and that if no payment or satisfactory response is forthcoming, the President, the Secretary, and the Treasurer do form a committee to take definite steps for the realisation of the affiliation fees. The committee was empowered to disaffiliate such Guilds as are still in arrears on 1st of December 1932.

2. That the Teachers' Association, P. S. High School, Mylapore be disaffiliated.

3. Resolved that a month's notice be given to the teachers' associations in arrears and that after that period should they still be in arrears be disaffiliated.

4. That the secretary and the Treasurer do take necessary steps for registering the S. I. T. U.

5. That an appeal be made to the District Guilds and Teachers' Associations to become life members to the 'South Indian Teacher' by paying a subscription of Rs. 50, payment being made in two instalments, if necessary.

6. That the secretary, Journal Committee be given a conveyance allowance of Rs. 42, per annum.

7. That the secretaries of District Guilds be requested to act as honorary correspondents for supplying the journal with educational news from their districts.

8. That Rs. 100, be sent to the Erode sufferers from out of the Defence fund and Erode sufferers' fund and to appeal to the teachers for further financial assistance.

9. That a sum of Rs. 75 be sanctioned to the official delegate attending the annual session of the All-India Federation of Teachers' Associations to be held at Lahore and that the president be the official delegate.

10. *Education Week*:—That the working committee do take steps to celebrate the Education Week from 16th to 23rd October 1932 and that if possible, an education week committee consisting of the W. C. and representatives of other Educational Associations and the Educational Department be formed to concert measures.

11. That a sum of Rs. 100 be paid to the Education week committee.

12. That six candidates be put up by the union for the ensuing Madras University Senate election, the candidates meeting to the expenses of the election.

13. *Silver Jubilee*:—That the Silver Jubilee of the S. I. T. U. be celebrated in May 1933, and that the working committee with Representatives of the Trichy Reception Committee be constituted into a year book committee with Mr. S. Natarajan as convener, to prepare the year book.

14. That the working committee of the S. I. T. U. do take necessary steps to conduct a raffle for Rs. 50,000 at Re. 1 a ticket, Rs. 25,000 to be set apart for prizes and that the raffle be drawn at Trichy during the ensuing Educational Conference.

15. That Mr. S. T. Ramanuja Iyengar be requested to draft the 'Service condition Bill' to be presented to the Working Committee before November 1932.

16. That the secretary of the S. I. T. U. do prepare a memorandum requesting the Government to permit teachers in aided schools to utilise their provident fund contribution for payment of life insurance premia.

17. The following were elected as Union representatives on the Council of the A. I. F. T. A.

Messrs. M. S. Sabhesan.
" V. Aravamuda Iyengar.
" M. J. Sargunam.
" V. Guruswami Sastrigal.
" S. Srinivasa Iyer.

All members except Mr. P. P. Venkatachalam were present.

The Madras members were "At Home" to the committee.

EDITORIAL

I
ANNUAL CONVOCATION

On Thursday the 4th of August was held the annual convocation of the Senate of the Madras University at which graduates were admitted to their respective degrees. The Hon'ble Dewan Bahadur S. Kumaraswami Reddiar, B.A., B.L., M.L.C., Minister of Education and Pro-chancellor of the University of Madras, delivered the convocation address. His Excellency the Chancellor presided. The spacious hall of the University which was tastefully decorated with flags and festoons was full to the brim with candidates, and visitors (ladies and gentlemen) thronged the seats on the sides and the staircase. The ceremony was an imposing one. As many as 1,247 graduates and diploma-holders were presented in person to the Chancellor and 588 were allowed to take their degree in absentia, making up a total of 1,835. There were many ladies among the recipients of various degrees.

II

As educationists we are very much interested in the address which the Education Minister delivered to the new graduates. The minister no doubt deserves to be congratulated upon his bold advocacy of the mother-tongue as the medium of instruction in schools. But he did not rise to any great heights of thought or expression as he should have done. This was the opportunity of his life time and he should have said the highest and the best he had to say upon the subject of national education of which he is in charge for the time being. We shall make our position clear by a closer study of the speech.

III

The Minister realises the obvious fact that we are living in very rapidly changing times and that "It is in education, more than in any other sphere of our national activities, that an early re-adjustment of the present system to suit the needs of the new order of things has become imperative." He laid emphasis upon the fact that the University has got an imperative duty to the nation in guiding us in the matter of "application of Science and its methods and resources to the organisation and technique of industries" and quoted the example of Western Universities. He pointed out the evils of examinations and pleaded for the development and perfecting of the whole man which would be possible only by personal contact between the teacher and the taught as in the residential Universities of Oxford and Cambridge. He then enumerated the recent achievements of the Madras University in the matter of developing its teaching side and then dwelt at length on the problem of the medium of instruction in which, as we pointed out before, he threw all the weight of his experience and official influence on the side of the mother-tongue. He went to the extent of saying that if the achievement of University men in the matter of carrying the knowledge they have received to the threshold of their less fortunate brethren is not as satisfactory as one would wish, it is due to our neglect of the mother-tongue as the medium of instruction. He exhorted the graduates to go back to villages and take interest in rural reconstruction. He appealed to them to lead the masses in a revolt against dead and deadening customs and to infuse amongst them a spirit of inquiry and revolt as against blind acquiescence. He commended to them the Scout movement and preached the efficacy of sports and games.

IV

The above analysis setting forth the important topics dealt with by the speaker only shows that the Minister is a man of culture who is conversant with current educational problems. It does not betray any sign of the Minister having thought about the problem of national education as a whole and the part of the University therein; of his having racked his brains to find a way out of the impasse we are heading to in the matter of the unemployment of the so-called educated. Huge sums of money are spent in turning out every year thousands of graduates who are not wanted by anybody and many of whom actually find it very difficult to earn a bare living. We look in vain for the Minister's idea of re-modelling this "sorry scheme of things." There is no original idea, no glowing vision, no sign of a struggle to find a way. If it is said that a convocation address is hardly the place to discuss educational policy we ask where else is the place? Has the Minister chalked out his policy of educational reconstruction anywhere else?

V

Examining the address in greater detail, we find that his conception of the educational system as a three-storeyed building with primary education creating an educated electorate, secondary education manufacturing Municipal Councillors, Taluk Board members, clerks or officers to carry on the administration and the University producing leaders is a rather narrow view of education attaching too much of importance to politics. Politics is good; it is necessary; but it is not the be all and end all either of life or of education.

"How small of all that human hearts endure.
That part which laws or kings can cause or cure,"

said Goldsmith and there is a good deal of truth in that. The school prepares the student for life and politics does not exhaust life.

Secondly, he pleaded for the University playing its part in the industrial regeneration of the land. What is it that the Minister has done to enable the University to do so? Has he taken steps for the starting of a technological side to the University? Others also like Sir M. Visweswariah have pleaded for it. Men of ideas suggest schemes; it is for men in power and position to put them into practice. We would be very thankful if the Minister adumbrates his schemes or at least takes steps by appointing a committee to examine the question and make recommendations.

So also in the matter of examinations. If he realised its limitations and drawbacks so much what did he do to lessen the evil? Why could he not have prevented the reconverting of the S.S.L.C. scheme into the old matriculation? We know that the scheme was conceived by idealists who wanted to attach importance to day-to-day work in schools and to the impression of the teacher about boys. That the teachers themselves have been agitating for this sorry change is no excuse. As the national leader responsible to the people in the matter of education he should have prevented us from ruining it and have left his mark on the scheme if he felt so strongly the evils of the examination system.

The Minister congratulated the Madras University on its developing the Teaching side. We agree, on the principle that half a loaf is better than no loaf at all; but we ask in all seriousness, has the University been progressing along the lines chalked out by the sponsors of the Act of 1923? Except creating huge unwieldy bodies who are therefore impotent and have to be controlled by an all powerful Executive whose powers have been considerably augmented by the revised Act of 1929, what have we done? How far are we nearer after nearly a decade of the new order of things to

the ideal of 1923, namely, "To establish a teaching and residential University at Madras" and to foster the development of academic life and corporate unity as well in the colleges as in the University by so promoting co-operation among the colleges and between the University and the colleges as to utilise to the full the teaching resources available within the limits of the University?"

VI

The fact seems to be that no one has thought of national education as a self-consistent whole; no Minister who has held charge of the portfolio of education after the inauguration of the Montford Reforms (not to speak of earlier administrators) has had "a conscious grasp of what education is and ought to be." None had any "standards" or "a philosophy" as Lord Eustace Percy says in his introduction to Mr. S. A. Akbar's recently published book on German Education. Everyone has been content to mark time, (so far as education is concerned), earn his salary and retire. The situation demands a bold thinker and a farsighted financier.

SCIENCE IN SECONDARY SCHOOLS

Ever since the S.S.L.C. scheme was remodelled a controversy centres round the Science Syllabus. Elementary science, History, and Geography were, in the old S.S.L.C. scheme, non-examination subjects. Teachers were given complete freedom in the teaching of these subjects. No necessity for preparing for an external examination was there to hamper the work of the teacher in these subjects. But unfortunately the craze for results at the public examination so dominated school work in many schools that Science, History and Geography were left to take care of themselves. They were assigned a place in the time-table, but the period was used for the teaching of the examination subjects. It was, however, a commendable thing that some educationists happened to realise that without an efficient course in General Science High School education would not be complete. What the country needs today is a thirst in our young men and women for more knowledge, a spirit of scientific enquiry into any given set of facts. And an agitation was rightly set up for greater attention to the teaching of Elementary Science in schools. This agitation must be said to be partly successful for Elementary Science has now been included in the list of examination subjects and it cannot be neglected. But now again comes an agitation as fierce as ever. It is said that the course is heavy, the syllabus is ambitious, and vague, that the strain on the pupils is very great and that schools cannot afford the facilities to teach all the subjects included in the syllabus. The remedies suggested are very diverse. Some suggest the deletion of such subjects as Animal and Plant life; others suggest that the examination should be confined to what is taught in the V and VI Form classes; while some, and unfortunately this group is very limited, suggest that the examination in this subject should be abolished.

In this number we have attempted to deal with the different aspects of the Science course. It is admitted on all sides that a "correct scientific training in the observation of facts and inferences is of the greatest use to man in his daily life. It develops in him an open mind on various problems that face him; he becomes critical of his own actions and cautious in his conclusions."

The contents of the Science course should therefore be such as to give our boys and girls such a training. As observed by the Haldane Committee, and quoted by Mr. M. S. Sabhesan, it should be remembered that for many of the pupils in our secondary schools, their only opportunity of obtaining a knowledge of

Science is during their stay in the school and "the course should therefore be self-contained and designed so as to give special attention to those natural phenomena which are matters of everyday life and experience." "No boy should leave the school with the idea that Science consists of Chemistry and Physics alone". It must include the elements of Biology. It will therefore be most unwise to agitate for the deletion of any part in the present Science course. But how are we to remove the strain on the pupils? Mr. M. S. Sabhesan has, in the course of his article, suggested with convincing reasons the following: 1. The adoption of the medium of the mother-tongue in the teaching of Elementary Science. 2. Making Science a non-examination subject; and 3. The provision of better facilities for the Science teacher to do his work with more enthusiasm, e.g. better-equipped laboratory, liberal leisure provision, a well-equipped museum, etc. These suggestions are not difficult to carry out. In this connection we invite the attention of our readers to the thoughtful suggestion of Dr. Gravely on the utilisation of Museums to the teaching of school subjects.

ECONOMIC CONDITION OF TEACHERS IN MADRAS.

Elsewhere we publish the 'Report of an Enquiry into the Economic Condition of Teachers in the Aided Secondary Schools in the City of Madras', by Mr. V. Bhuvarahamurthy, M.A., Dip. Econ. We commend this to the careful attention of all persons interested in the education of our youths. "An anxious and embittered teacher," in the words of the Rt. Hon'ble Lord Fisher, "is a social evil." Unfortunately, the report clearly shows that in many schools teachers have to depend on the uncertain and unreliable income from private tuition work: *It is clear that under the conditions obtaining at present, supplementary income is an important part of the teacher's total income..........It seems that salaries now paid to teachers are based on the assumption that they would be added to by tuition work."* Rightly does it observe that such a method of remuneration is bound to be fraught with much evil and will cause great harm to the community. This necessity to eke out his salary to get a living income, curbs the teacher's enthusiasm and effectively prevents him from contributing to the success of the extra mural activities of the schools. That teachers are in a bad way financially is clearly brought out in the report. According to the report 33.37 live beyond their income. About 70 per cent of teachers are indebted, their indebtedness ranging from Rs. 100 to over Rs. 1,500. The report throws valuable light on the housing conditions of teachers. Out of the 82 families studied 32 have no bed-rooms as such and "use some space like the varandah, or the pial, areas common to all tenants in the house, as lying down space and *manage somehow.*" In the words of Prof. Kaji, re: life in one-roomed tenements, "Life in one room goes against the grain of a middle-class person; it thoroughly militates against the ideas of comfort and decency that essentially constitutes the middle-class man and it is only through the impossibility of affording more roomy quarters that he puts up with it."

The investigation was made with a view to getting information re: 1. Housing condition of Teachers, (2) Salaries, (3) Supplemental income, (4) Size of the family, (5) Details of expenditure under food items, clothing, rent, medicine, conventional necessaries and services, professional expenses, domestic ceremonies, hobbies, (6) Balance sheet of the Teacher, (7) Provision for old age, and (8) Security of tenure. Only 82 teachers furnished the information

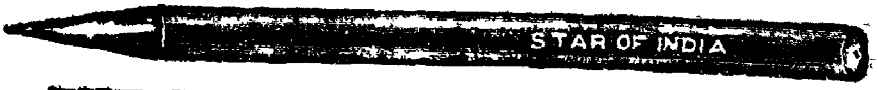
called for. But they are representative of the different grades of teachers working in aided Secondary Schools in the city of Madras and drawing salaries between Rs. 25 and Rs. 150. We are told that the investigation does not include headmasters and one wonders if it includes women teachers. It is rather unfortunate that the investigator should not have succeeded in his attempt to get replies from all the 600 teachers working in the city schools. But this is as it should be. Many teachers are too proud to give details of their financial position even when asked for the purpose of an investigation! We congratulate Mr. V. Bhuvarahamurthy Rao on the valuable service he has rendered to the teaching profession by laying bare their real conditions of life and making a strong and powerful plea for the betterment of the conditions. It is for the community to pause and think and take immediate steps to enable the teacher to lead a truly cultural life, a life which will keep him above want and will enable him to bring to bear on his work that freshness and vigour, so necessary when dealing with young growing minds.

ERODE SUFFERERS.

We are informed by the Secretary of the Vigilance Committee that the two teachers, Messrs. Ramakrishna Aiyar and Kasturiranga Aiyangar whose services are alleged to be unjustly terminated by the management of the Erode Mahajana High School, have resorted to legal proceedings against that management. Our readers are well aware of the circumstances leading to the termination of the services of these two teachers and in response to their appeal made at the time of the Provincial Educational Conference at Palghat, the S. I. T. U. promised to secure from the teachers in the presidency some financial help to aid these aggrieved teachers in their struggle. We now appeal to all teachers to contribute their mite to the DEFENCE FUND, started two years ago by the S. I. T. U. Contributions may be sent to the Secretary, The South India Teachers' Union, 41, Singarachari Street, Triplicane, Madras, and they will be thankfully acknowledged in the columns of the Journal. The need is urgent and we hope that teachers will respond quickly.

MOTHER INDIA

Depends on the Youth of India for its Future Prosperity



THE MADRAS PENCIL FACTORY

REPORT OF AN ENQUIRY INTO THE ECONOMIC CONDITION OF TEACHERS IN THE AIDED SECONDARY SCHOOLS IN THE CITY OF MADRAS.

BY

MR. V. BHUVARAHA MURTHI, M.A., DIP. ECON.

"There is no such thing as a good school without good teachers. The conditions of service and tenure leave much to be desired. The deplorably low rates of pay which prevail in many provinces provide a part of the explanation of the present deficiency; there is no Burnham scale in India . . . . it is often impossible for the teacher to maintain in the community the status which should be his."

SIMON COMMISSION REPORT.

INTRODUCTORY.

In Secondary Education the policy of the Government is to rely on private enterprise. The Education Commission of 1883 recommended the progressive devolution of (primary) Secondary (and collegiate) education upon private enterprise and the continuous withdrawal of Government from competition therewith. This policy was accepted by the Government and the Resolution of 1904 laid stress 'on the extreme importance of the principle that in each branch of education Government should maintain a limited number of institutions, both as models for private enterprise to follow and in order to uphold a high standard of education'. The resolution said, "In withdrawing from direct management, it is further essential that Government should retain a general control, by means of efficient inspection over all public educational institutions". The Education Resolution of the Government of India of 1913 re-affirmed the policy of relying mainly on private effort in secondary education with the assistance of *a more elastic system of Grants-in-aid, and the encouragement of varied methods of teaching and courses; and also recognised the necessity for improving the pay and prospects of teachers in the educational services.* The result of such a policy was that in the year 1930-31, out of 595 Secondary Schools, 558 were under Board, Municipal or aided managements and of these over 300 schools were aided schools. Nearly 50% of the total number of trained teachers are serving in these aided schools, a large number of which provide no salary scales at all. It is important that this large section of teachers should have an adequate salary and security of tenure so that the efficiency of instruction may be kept up at a high level. As the *Interim Report of the Indian Statutory Commission* * says, 'The average quality of the teacher and of the teaching depends to a considerable extent on the pay and condition of service . .. .. The best type of men cannot be attracted to the profession so long as these remain unsatisfactory and only too frequently the teachers have no heart in their work.". About the service conditions in aided schools, the same report observes: "The most serious difficulty facing the teacher in the great majority of privately managed schools is insecurity of tenure Generally no contracts or agreements are made and teachers are frequently sent away at short notice. We have had it in evidence that some schools even make it a practice to recruit teachers for 9 months, thus avoiding the payment of vacation salaries, the payment of increments and the necessity for appointing permanent trained men. The salaries of teachers are not infrequently paid very irregularly and compulsory levies for school purposes are sometimes made from the teachers' slender earnings. In spite of what has been done in recent years, the conditions of service of the teachers must be greatly altered before the quality of secondary education can become satisfactory".

The South India Teachers' Union and various district Guilds affiliated to it, have been, for the

* Hartog Committee Report.

past so many years, trying to ameliorate the condition of teachers and to make teaching a *profession* in the full sense of the word. With a view to basing its propaganda work, not on imaginary grievances, vague generalisations and platitudes, but on facts and figures obtained as results of an enquiry into the economic condition of teachers in this Presidency, the S. I. T. U. issued a questionnaire in 1927 and sent copies of it to the teachers in all the secondary schools in the Presidency. But teachers are a shy lot, much too humble and self-effacing and they are not over ready to furnish details of their family expenditure even to well-meaning persons So it was no surprise to the secretaries of the S. I. T. U. when they received only 86 answers from 16 districts of which only five were from Madras. Mr. Subbarama Iyer studied the answers and drafted a report * on the condition of teachers in the Presidency.

The report, though it drew many valuable inferences from the data obtained about the teaching profession in general, could not give very accurate idea of the life of teachers in a big city like Madras, where conditions are, in many respects, different from those of other towns in the districts.

Hence some of the members of the Madras Teachers' Guild thought that an enquiry of that kind, if conducted in the city of Madras, would be of immense value. When I was the Treasurer of the Guild, I offered to carry on an enquiry into the condition of the teachers in the Aided Secondary schools in the city, and the Guild Executive promised me their help and co-operation. This report contains a description of the method and a statement of the results of the enquiry.

2 THE SCOPE OF THE QUESTIONNAIRE.

A questionnaire was issued with a view to obtaining from the teachers information regarding the following points:

1. Housing condition,
2. Salary and its scales,
3. Supplemental income,
4. Size of the family,
5. Details of expenditure under the following heads:
   - (a) food items,
   - (b) conventional necessaries and services,
   - (c) rent,
   - (d) clothing,
   - (e) medical aid,
   - (f) professional expenses,
   - (g) domestic ceremonies and religious ceremonies,
   - (h) hobbies, etc.
6. The balance sheet showing surplus or deficit and indebtedness and details about the amount of debt and the rate of interest,
7. Provision for old age such as contribution to Provident Fund, Insurance, savings, etc.,
8. Security of tenure.

Besides these, the questionnaire sought to ascertain from teachers the quantity and nature of work inside and outside the class room and also their views on some of the vital problems connected with the teaching profession

3. CLASS OF TEACHERS STUDIED.

The term "teacher" is a wide one and includes all grades of teachers, from professors in colleges drawing monthly salaries ranging from Rs. 300 to Rs. 1,200, to the poor elementary grade teacher on Rs. 15 a month. *But the scope of this enquiry is limited to the teachers in Aided Secondary schools in the city of Madras,* and even Headmasters of secondary schools do not come within this enquiry inasmuch as they form a class apart and their salaries range ordinarily from Rs. 150 to Rs. 300 per month So it need scarcely be said that all grades of teachers except the Headmasters employed in the Secondary Schools in the city come within the purview of this enquiry and their salaries fall within the limits of Rs. 25 and Rs. 150 the lowest and the highest salary an assistant master is paid in the city schools.

This class of teachers taken for study is not quite homogeneous, however they fall into a few well-defined grades according to their general education and the nature of the work they are required to do: those are the Collegiate trained teachers, the Secondary grade teachers, the Higher Elementary grade teachers, the Pandits and the Instructors.

4 GRADES OF TEACHERS.

Just to dispel the notion that any person, who has failed in other walks of life, can directly become a teacher, it should, at the outset, be made clear what the minimum qualifications of the teachers of several grades employed in secondary schools are

Graduate teachers are those who, taking their B A , or M A., Degree (Pass or Honours) undergo a year's course in a training college and take their L T , degree after passing the prescribed examination. During the course of their training, they study about modern methods of teaching English and a special subject in addition to a general study

* Report on the Economic condition of teachers in Madras Presidency by Mr. S. Subbarama Iyer, Lecturer in Economics, Christian College.—S. I. T. March and April 1928.

of the theory and practice of teaching. About 23% of the teachers in secondary schools are of this class.

Under the "*Secondary Grade*" come two groups of teachers classified according to the general educational qualifications. There are (1) those who have passed F A or Intermediate examination and undergone a year's course in a training school and passed the prescribed examination, (2) those who after passing the Matriculation Examination or completing the S S. L C. course have undergone a two years' course in a training school and passed the Training School Leaving Certificate Examination. The latter during the first year of their course are taught subjects like English, Mathematics, History, Geography, Elementary Science, and a vernacular, and in the next year given a course in the theory and practice of teaching. During the first 18 months of their service, the Secondary grade teachers are observed by the inspecting officers of the Educational Department to inspect and after 18 months of attested service, they are made to undergo a practical test, which when completed gives them the status of "Trained and Certified teachers" This class of teachers form about 40% of the teaching staff in our secondary schools. They generally work in the lower forms, that is, in Forms I, II and III.

The Higher Grade teachers are those who have studied at least up to the VIII standard and have undergone a two years' course in a training school. They also have to pass a practical test after 18 months of attested service There are not many teachers of this grade in our Secondary schools as the Education Department insists that the minimum qualification of the teachers in charge of the lower classes in secondary schools should at least, be Secondary Grade. During the course of training a large number of teachers receive from the Government monthly stipends: M.A's. receive Rs. 20, B.A's Rs. 15, Intermediates and S. S. L. C. Rs 12, and the Higher grades Rs. 10-8-0. As a measure of retrenchment the stipends have since been abolished in the case of collegiate teachers and reduced by 25% in the case of others

Pandits are those who teach the Vernacular languages and Sanskrit in our schools. Most of them have spent many years in the study of their respective languages, though only a few of them have passed Oriental Titles Examinations and fewer have undergone any course of training. The term "*Instructors*" is rather wide and it includes the Drawing master, the Drill master, the Commercial Instructor and the Manual Training Instructor. They have specialised in their subjects and have passed examinations conducted by the Government.

5. METHOD OF INVESTIGATION..

There are about 600 teachers, L. T.'s, and Secondary Grades, Pandits and Instructors in all the 23 aided Schools in the city. Of these about 20 per cent are untrained, most of whom are the Pandits and Instructors. In conducting this enquiry it was at first planned that every one of those 600 teachers should be requested to answer the questionnaire. But it was not found possible to get forms filled up by all. Many of the teachers did not show any readiness to answering the questionnaire, thus not a little damping the enthusiasm of the investigator. So the plan of securing answers to the questionnaire from all the teachers had to be given up.

The next best plan was to study a good number of representative samples from among the teaching profession How to select the samples and how many samples should be studied for obtaining as far as possible an accurate idea of the economic condition of the teachers were the next points to which anxious thought was bestowed After much discussion with friends the following plan was adopted A few (2 or 3 or even more according to the strength of the school) of the graduate teachers, as many Secondary grade teachers, one or two pandits, a drill master, and a drawing master were selected haphazard from the list of teachers on the staff of each school, taking care to see that the number of samples formed at least 20 per cent of the staff. Thus it was sought to obtain fairly representative samples from all grades of teachers from many of the aided Secondary schools in the city. But only 82 teachers were kind enough to send answers to the questionnaire.

Studying the answers to the questionnaire formed only a part of the investigation work; personal enquiry into typical cases was also conducted, their homes were visited and the general standard of life observed.

An analysis of the samples shows that 30 collegiate trained teachers, 10 Intermediates, 17 S S. L. C. or Matric trained teachers, 4 Elementary Higher trained men, 7 qualified Instructors and 14 Pandits have sent in answers to the questionnaire. Except Purasawalkam and Perambur, all other areas in the city are represented For purposes of study, these samples have been classified into three groups—(1) Graduate teachers; (2) Secondary Grade Teachers (3) Pandits, Instructors, etc.

A large percentage of teachers are Brahmins. this is so despite the random nature of the samples got. This is only to be expected when one remembers that this caste has been the privileged

teaching caste from times immemorial.*' Teachers from other castes and religious denominations are, however, represented.

Brahmins	..	..	54
Non-Brahmin Hindus	..	..	18
Indian Christians	..	..	6
Muhammadans	..	..	4
	Total	..	82

6. HOUSING CONDITIONS.

The questionnaire sought to elicit some information about the housing conditions of teachers in the city. It is a pity that many did not give detailed answers to these questions. Some answers, as for example, the area of the floor space in the tenement, appear only to be guess work and not the result of actual measurement. Inspection of many of the houses of teachers confirms one in the belief that the information supplied under this head cannot be wholly relied on. Hence no attempt is here made to arrive at the floor area per member of a teacher's family. It is not, however, difficult to give an idea of the degree of comfort in which a teacher's family lives by a study of the number of rooms in their tenements and also the number of tenants living in the same house. To bring out the significance of the following figures, it is necessary to add that rooms occupied by the people of lower middle class are between 15 ft. by 12 ft. and 10 ft. by 8 ft.

* Even in the Enquiry in Bombay the majority of families studied belonged to the Brahmin caste.

The following table shows that nearly 4 per cent of the families live in single roomed tenements; 53 per cent in two-roomed tenements; 33 per cent in tenements with three rooms; and the rest in tenements with 4 or more rooms. According to the standard which regards overcrowding as beginning when there are more than three persons to a room, there would be as many as 8 families or about 10 per cent of the families studied living in overcrowded conditions. As most of the families coming under the category of the lower middle class live in two roomed tenements with some free space going by the name of *Kudam* or *Varandah*, the housing accommodation for teachers cannot be said to be insufficient in about 60 per cent of families. But there are 24 out of 43 two roomed tenements with no *kudam* or *varandah*, and it is found that all these families come from the lower income groups, i.e., Secondary grade teachers, Pandits and Instructors. It is more often the salary rather than the real income of teachers that settles the amount of rent a teacher is willing to pay for his tenement and so, as salary increases, there is always a tendency among them to have more rooms.* The inference can only be that it is the inadequate salary that compels a teacher to have an overcrowded home; and as the salary increases, his family spreads into additional rooms.

* e.g., A temporary teacher, on a monthly salary of Rs. 30, was prepared to pay a house rent of Rs. 8 though he was earning Rs. 15 by doing tuition work. When, after some years he was made permanent on Rs. 40-2-50, he readily paid a rent of Rs. 11 for a bigger tenement. Teachers cannot entirely rely on income from tuition work.

Table I showing the analysis of tenements by number of occupants.

Number of Rooms	Number of tenements of each class containing the following number of persons. 1	2	3	4	5	6	7	8	Over. 8	Total tenements	Percentage in each class.
1 Room		1	1	1						3	3.7
2 Rooms	1*	2	5	12	14	2	5		2	43	53.1
3 Rooms			1	3	11	5	5	1	1	27	33.3
4 Rooms	1†		1	1	1				2	6	7.4
Over 4 Rooms				1					1	2	2.5
Total	2	3	8	18	26	7	10	1	6	81‡	100.0

*Bachelor.
†Bachelor.

‡One teacher who owns a house and lives in it, has not given details about the number of rooms.

Of the 82 families studied, 5 live in their own houses; 32 families have no bedrooms as such, and use some space like the *varandah* or the *pial,* areas common to all the tenants in the house, as lying down space and '*manage somehow*'. Such instances of 'managing somehow' are always found among families occupying one or two rooms. The following observations of Prof. Kaji *re* life in one roomed tenements in Bombay are equally applicable to life in one roomed tenements of educated middle class teachers in Madras.. "Life in one room goes against the grain of a middle class person; it thoroughly militates against the ideas of comfort and decency that essentially constitute the middle class man and it is only through the impossiblity of affording more roomy quarters that he puts up with it, though even then he tries to make two rooms out of one by a sort of partition by cupboards or curtains. It is not so much a question of space with him as of the fitness of things." A teacher for common decency requires *at least* two rooms; and some open space like a hall or *kudam*. One of the rooms can be used both as kitchen and store-room, while the other room can be used as a living and bedroom. Other members of his family, like his brother or his mother may use *kudam* and *varandah* for taking bed at nights. Without this much minimum space a teacher does not think he has a home. The life in such a tenement can be briefly described. The teacher has to receive his friends and students in his bedroom, he has to sit and study in his bedroom; at night he takes his bed there. The *kudam* is the space where his mother or sister or other female dependants will sleep. If there is a guest, he is either to be sent somewhere to sleep, or the *kudam* should be allotted to him, the ladies of the family sleeping in the kitchen after washing and drying it. If an adult or a child falls ill, the kudam or bedroom will not be available for others to sleep in and the kitchen—store-room is again used. To apply the Words 'Home, Sweet Home' to such tenements is sheer abuse of words.

Of the 82 teachers, 5 own houses
14 live in house with no other tenants.
36 live in houses with 2 tenements.
12 live in houses with 3 tenements.
7 live in houses with 4 tenements.
6 live in houses with 5 tenements.
2 live in houses with more than 5 tenements.

7 STRENGTH OF THE FAMILY.

The following table shows the strength of the family according to income groups. There are 82 families with an aggregate of 129 men, 133 women and 164 children. The average strength of the family, therefore, is 1 6 men 1 6 women and 2 children, i.e., 5·2 which number compared with the strength of the middle class family in Bombay stands a little higher.* So, it can be inferred from the above that a teacher's family generally consists of the teacher, his wife, two children and an adult male or female dependant making an average of 5 persons

*1 In an enquiry into the conditions of middle class families in Bombay city, it is stated that the average strength of a family is 1·51 men, 1·45 women, 1 62 children, and ·51 dependants, i.e., 5 09 persons.

2. A report on the economic condition of teachers in Bombay City stated that the average strength of teachers' family is 3 74 persons Mr. S Subbarama Iyer, in his report on the condition of teachers in Madras Presidency, gives 1·9 men, 2 1 women, 2 1 children as the average strength of teachers' family.

Table II showing the strength of the family by Salary groups.

Number of families		Persons living in the family Men.	Women.	Children.	Average strength of the family.
32	Below Rs. 50 per month	36	32	43	4.4
25	Rs. 51— 75	51	54	63	5.2
16	Rs. 76—100	24	29	32	5.3
9	Rs. 101 and over	18	18	26	6.9
Total 82		129	133	164	
Average strength of family		1.6	1.6	2	5.2

Table III showing the average strength of the family according to the age of the teacher.

Number of families.	Limit of age of teachers.	Persons in the family. Men.	Women.	Children.	Strength of family.
15	30 years and below	2.3	2	1.4	5.7
28	31 to 35 years	1.5	1.7	2	5.2
18	36 to 40 years	1.3	1.4	2.6	5.3
15	41 to 50 years	1.1	1.5	1.9	4.5
16	over 50 years	2	1.3	2	5.3
82	Average.	1.6	1.6	2	5.2

The above table shows the strength of the family according to the age of the teacher the chief bread-winner in the family. Whatever the age, the Indian teacher has, like other members of the middle class, to provide for a number of people even if he has no children, and as such may be expected to have a small family. The strength of families in our society depends on many social forces. To quote from the Report of an enquiry into the middle class family budgets in Bombay city. "It is well known that family life is less individualistic in the East than in the West. An Indian family generally consists not only of husband, wife and children, but also of other dependants such as the husband's or the wife's near or distant relatives." And a young man as soon as he marries does not set up a separate family for himself, but lives with his parents If he happens to be the sole earner, as is the case with most of teachers' families, his parents become his dependants, besides his brother or sister or aunt. By the time his parents pass away, he has his own grown up children to be educated or married. Hence it is not surprising to infer from the above table that at no stage in their lives, teachers have families with less than 5 persons. Young teachers below 30 years have more dependants than children to support. The low strength of 4·5 in the group 41 to 50 years is due to the fact that 9 out of 15 teachers have no father and their children are yet below 15 years and in the last group (over 50 years) some children have grown up into adults.

The strength of the family by grades is also given in a tabular form. (Table IV). Though it may be said from observation and experience of the constitution of middle class families that there is no connection between a person's income and the number of dependants and children he is called on to support, the above tables clearly show that teachers with higher income have larger families generally. Among Indians who have inherited a tradition for large hearted sympathy in social affairs, one's income also goes far to determine, in

Table IV strength of family by Grades.

Number of families.	Grades of Teachers.	Number of Persons in the family.			Average Streng of the family.
30	Graduates (L.Ts.,	55	57	62	5.8
10	Intermediates	14	15	22	5.1
17	S.S.L.C. or Matrics	25	30	34	5.2
4	Higher Grade	5	5	8	4.5
7	Instructors	11	7	12	4.3
14	Pandits	19	19	26	4.6
82	Average	1.6	1.6	2	5.2

most cases, the number of dependants one would support. In cases where the earnings are low, near relatives or dependants could not be provided for in spite of the natural desire of the man to help them, the income delimiting his sympathy taking practical form With a decent income, he could not refuse help and he would naturally help those whom he thinks he is bound to.

Among families studied there are 13 cases with dependants living away from the family in their villages to whom the teacher sends a small sum of money now and then or at regular intervals. The budgets studied in this report include only particulars of dependants that live with the teachers and have to be provided with everything that their families get.

Table V classification of families according to composition.

Man.	Woman.	No. Ch.	1 Ch.	2 Ch.	3 Ch.	4 Ch.	More than 4 Ch. Ch.	No. of families.
1 Man	1 Woman	3	6	10	10	2	2	33
1 Man	2 Women	2	2	5	3	2	-	14
1 Man	3 Women and more						1	1
2 Men	1 Woman	1	2	3	2			8
2 Men	2 Women	1	3		1			5
2 Men	3 Women and more	2	1	1	2			6
3 Men & more	1 Woman			1				1
3 Men & more	2 Women	1	1			1	1	4
3 Men & more	3 Women and more		1		1		2	4
Total.		10	17	20	19	5	5	76

From the above table it could be found that there are 33 *one man, one woman families,* 14 one man 2 women families· 10 families have no children; 17 only one child, 20 have two children; and 19 have 3 children and so on. There are 6 more families not coming under this classification. For, *two teachers* are bachelors; 2 *teachers* have lost their wives and have children. *One teacher* has not yet married, but has his parents, and 4 brothers and sisters to support and *another teacher* is a widower, with his father and brother and his two children who mostly live in their village.

There are 45 families with one or more dependants. Of these 32 have given details of the relationship of their dependants. They are either aged parents, young brothers or widowed sisters or sisters-in-law, orphaned nephews or nieces, or aunts.

1. Aunt (widowed).
2. A nephew and a niece of 10 years both studying
3. Brother and his wife. *Brother earning.*
4. Father and 2 minor brothers.
5. Father, mother and minor brother.
6. Mother, *Brother* (*earning*) and his wife.
7. Mother, brother (student) widowed sister.
8. Father.
9. Father and mother.
10. Sister-in-law and mother.
11. Father, mother widowed sister.
12. *Brother* (*earning*) 2 minor brothers, brother's wife, mother, grandmother, nephew.
13. Brother aged 19 studying.
14. Father, sister, aunt
15. Sister-in-law.
16. Brother and his wife (Brother unemployed)
17. Daughter aged 17 not taken by her husband.
18. Aged father.
19. Mother.
20. One widowed sister, one widowed sister-in-law.
21. Father, 2 brothers of whom one is *earning.* mother, niece.
22. Mother.
23. Brother studying, mother.

24. Father.
25. Father, mother unmarried sister.
26. Mother.
27. One brother unemployed, unmarried sister.
28. Father old.
29. Father, mother, two brothers studying in school.
30. Nephew studying.
31. Brother (earning), old father, sister widowed
32. Son (over 16) earning.

8. *EXPENDITURE OF THE FAMILY.*

Before making a study of the salary and the real income of the teacher, it would be better to examine the expenditure of a teacher's family. Answers to the questionnaire contained details of monthly expenditure on the following items: food, conventional necessaries, medical aid, newspapers and magazines, rent, provident fund and insurance, fuel, lighting, annual expenditure on clothing education of children, ceremonies and domestic festivals, hobbies etc. These items were divided into the following groups:—(1) Food. (2) Fuel and lighting. (3) Rent. (4) Clothing. (5) Provident Fund and Insurance payments. (6) Interest on debt. (7) Miscellaneous.

An analysis of 72* budgets gives the following percentage of expenditure on various groups.

*Out of 82 answers, 10 furnished only incomplete details about expenditure and so were rejected.

Table VI showing Average Group percentage expenditure of teachers' families.

Groups.	72 bud gets. Av. expenditure in Rupees.	Av. expenditure as percentages.
Food	33.9	39.4%
Fuel and Lighting	5.1	5.9%
Rent	12.5	15%
Clothing	7.9	9.2%
Provident Fund and Insurance	5.2	6%
Int on debt	5.2	6%
Miscellaneous*	15.9	18.5%
Total.	86.0	100.0

*For details under this head see table XIV.

In this connection, the results of a study of 43 family budgets of teachers in Bombay city will be found useful for comparison. According to that report* average percentages of expenditure on various groups was as follows: Food 46·77%; Fuel and lighting 6 33%; Rent 15 62%; clothing 9·56%; Bedding and household necessaries 2.78%. Miscellaneous 18·94% There does not seem to be much difference in the apportionment of expenditure on various heads. Mr. Subbarama Iyer's study (of the teacher class mostly from rural areas and small towns where expenditure on Fuel, Rent etc., is not considerable) reveals the following percentages:—

Food ..	51·2%
Clothing ..	11·0%
P. Fund etc., ..	6 7%
Interest on debt ..	7%
Miscellaneous ..	24 1%

In the following table will be found the percentage of expenditure on the several items according to Salary Groups and Grades.

*Economic position of Teachers in Bombay City, Labour Gazette, Mar. 1926.

Table VII. Average group percentage of expenditure of families of teachers by Salaries.

Groups.	28 budgets Below Rs. 50.	22 budget Rs. 51—75.	15 budgets Rs. 76—100	7 budgets Above Rs. 100.
Food	44.3	39.5	36.0	34.0
Fuel and lighting	7:1	5.9	5.1	5.2
Rent	14.7	15.4	14.4	15.0
Clothing	8.7	8.1	10.4	10.6
P. Fund & Ins.	4.3	6.0	6.6	8.8
Int on debt	4.3	7.1	7.5	5.2
Miscellaneous	16.6	18.0	20.0	21.2
Total	100.0	100.0	100.0	100.0

Table VIII Average Group percentage of expenditure of families by Grades.

Groups.	L.Ts. 25	Secondary Grade 24	Pandits, Instructors etc. 23
Food	36.0	41.2	43 0
Fuel and Lighting	5.6	6.2	6.3
Rent	13.2	16.0	16.2
Clothing	10.4	8.0	8.6
P. F & Insurance	7.6	5.8	3.7
Int. on debt	6.6	5.6	5.7
Miscellaneous	20.6	17.2	16.5
Total.	100.0	100.0	100.0

9. FOOD.

The average monthly expenditure on food items is given in the following table.

Table IX. Expenditure on food items by salary classes.

Number of budgets.	Salary classes.	In Rupees.	In percentages.
28	Below Rs. 50	31	44.3
22	Rs. 51— 75	34	39.5
15	Rs. 76—100	36	36.0
7	Over Rs. 100	40.8	34.0
72	Average for all classes.	33.9	39.4

Though the actual expenditure on food items in terms of money increases as we go to higher income groups, the percentage of expenditure on food to total expenditure decreases. That shows that among lower salary groups a large percentage of expenditure on the prime necessaries, like food, leaves less for other items of expenditure which make for comfortable living

The principal articles of food on which expenditure is incurred are rice, dholl, spices, milk, curds, oil, vegetables and sugar. It was hoped that teachers would be able to give in the statement of expenditure quantities consumed as well as the prices of several articles, and the total expenditure under food item, but while the expenditure was supplied under each head, most of the teachers did not and could not give the quantity of rice, dholl, milk etc, by measure or by weight, in fact they had only vague ideas of the quantities their families were consuming. In the case of rice, it

was easy as they knew the capacity of the rice bag they usually bought; but as regards pulses, spices, vegetables etc., they could give only the approximate estimate of the expenditure they usually incurred. The word *usually* is used, because, the figures given were not, in most cases, carefully taken down from the account books, but only estimates, of course, arrived at after long periods of experience in the purchase of household necessaries. It is unnecessary to say that most teachers, like the majority of the lower middle class people, do not keep careful accounts of the several commodities and services they buy, but yet they can give quite accurately the expenses they incur under such heads: to the grocer, to the oil merchant, to the ghee merhant, to the milkman and the curds woman; to the dhoby, to the barber, etc., for most of them buy all their provisions and even some services like the barber's and the washerman's on credit and pay the bill in the following month. So it can be said that, on the whole, the figures given are not overestimates and can be relied on. Under food item the average amount to the nearest anna spent on various heads under food is as follows:—

Table X. Average amount to the nearest anna spent on various heads under Food item is as follows:

Number of budgets.	Average strength of family.	Items.	Amount in Rs.
72	1.6 men	Rice	10 8 0
	1.6 women	Dholl and pulses	1 9 0
	2 children	Spices etc.	1 7 0
		Coffee or tea	2 0 0
		Sugar	1 2 0
		Vegetables	3 0 0
		Ghee	2 0 0
		Oil	1 10 0
		Curds and milk	7 8 0
		Other Groceries	1 0 0
		Tiffin etc.,	2 2 0
72 budgets	5.2 persons	Total.	33 14 0

10. FUEL AND LIGHTING.

In Madras, Casuarina wood and wood charcoal are used for fuel and generally kerosene oil for lighting The average monthly expenditure on fuel and lighting is Rs. 5-2-0 or 5 9% of the total monthly expenditure. Charcoal was sold at Rs 3 per cwt. and the firewood at Rs. 28 per ton. Teachers buy their fuel in retail shops in small quantities, and no doubt, pay higher prices. Kerosene is sold at 11 as per gallon. Most of the teachers, as far as I have been able to observe, do not practise economy in the use of kerosene and they burn midnight oil in study or correction work.

11. RENT.

An idea of the housing condition of the teachers was given in section 6. Now when we examine the rents paid by teachers for their tenements, we find that the percentage of house rent of the total expenditure by salary groups lies between 14 4% and 15 4%. Expenditure on rent as a percentage of total expenditure is given in the following table. It is interesting to note the relation between the actual and percentage expenditure on house rent. Though the lower income groups are spending smaller sums on house-rent, the percentage tends to be nearly the same for all classes.

Tables XI. Average monthly expenditure on rent as a percentage of total expenditure.
By Salary Groups.

Number of budgets.	Groups.	Amount in Rs.	Percentage.
28	Below Rs. 50	10.3	14.7
22	Rs. 51— 75	13.2	15.4
15	Rs. 76—100	14.4	14.4
7	Over Rs. 100	17.8	15.
Average for all classes.		12.5	15%

It was mentioned in Section 6 that the minimum house room necessary for a teacher's family to live in minimum comfort consistent with the position he holds in society and the requirements of a healthy life, would be about two rooms and some open space like the *kudam*. The rent for a tenement of this kind in a locality inhabited by the lower middle class will be about Rs. 12 to 15. If the family has to maintain one or two dependents in addition to children, more space will be required and more rent will have to be paid. Besides, in Madras city, many schools are situated in the most busy parts of the city and the rents of tenements near by are always high. A large number of teachers live far away from their schools and incur a small expense for conveyance to and from school every month There are no co-operative house building societies for teachers in any of the thirty divisions in the city and the managements of secondary schools, except one residential school, have not made any arrangement for housing their employees. There is as yet no attempt on the part of teachers themselves to organise building societies. Even the Madras Corporation which employs more than a thousand teachers has not thought of any housing scheme, and it is clear that the idea that teachers should be helped in this direction has not even occurred to managers.

12. CLOTHING.

It was rather difficult for the teachers to give, with any degree of accuracy, the actual amount expended on clothing. Unlike food, rent, etc., which were monthly items, expenditure on clothing was not incurred every month nor at regular intervals, say once a year. Teachers were asked to give the value of clothing they and members of their family were using and assuming that they would last for twelve months, an approximate monthly estimate was arrived at.

A teacher has to maintain some standard in dressing. He would be simply inviting ridicule and occasioning much suppressed laughter if he went to school in shabby clothes. He goes to his class decently dressed though the stuff he may be using might be cheap and of the plainest kind. It is indeed difficult to say that teachers in secondary schools spend less on dress than other members of the lower middle class who are employed in Government offices or commercial firms or colleges and who dress in the Indian or rather Madras style.

Table XII. Average percentage of monthly expenditure on clothing by salary groups.

Number of budgets.	Groups.	Amount in Rs.	Percentage.
28	Below Rs. 50	6.1	8.7
22	Rs. 51— 75	7	8.1
15	Rs. 76—100	10.4	10.4
7	Above Rs. 100.	12.8	10.6
Average for all classes		7-14-0	9.2%

MISCELLANEOUS GROUP.

Of the seven groups into which a teachers' family expenditure has been divided, the last or the miscellaneous group is the most important in as much as it is generally considered to be an important criterion by which standards of life and comfort are judged. For there is a great difference between 'living' and 'living well'. A family on subsistence income just manages to live satisfying the demands of physical life; and so long as the bare struggle for continuance of physical existence absorbs all the energies of the family members, they cannot be civilised or cultured. Any margin over and above this subsistence income will be used for procuring better food and more of it; for education and self-development; for living a comfortable life; for amusements and recreations; for providing for old age, etc., Since minimum necessaries only ward off pain, but do not yield satisfaction, expenditure on this group is the most significant This miscellaneous group includes the following conventional necessaries such as betel, shaving, washing, toilet materials, servants' wages, amusements, etc., medicine and medical aid; professional charges; subscriptions, newspapers, books, magazines and postage; conveyance charges to and from school; annual trips to native villages; education of children; domestic festivals and religious ceremonies; provident fund, insurance premia and other items of expenditure to provide for old age,

Table XIII. The average monthly expenditure on miscellaneous item by Salary groups.

Number of burgets.	Groups.	Amount in Rs.	As percentage of total expenditure.
28	Below Rs. 50.	11.6	16.6
22	Rs. 51— 75	15.5	18.0
15	Rs. 76—100	20	20.0
7	Over Rs. 100.	25.4	21.2
72	For all groups.	15.9	18.5%

(i) CONVENTIONAL NECESSARIES.

A middle class Indian family is used to betel chewing and it is indeed more than an everyday article of consumption. On all ceremonial occasions, betel leaves and nut are distributed among the lady and gentlemen visitors. There is not a middle class family that does not incur some expenditure on this item. Shaving or hair cutting, and dhobi charges cannot be avoided either. From the answers to the questionnaire it is found that expenditure on betel and nut, etc., comes to about Rs. 2 a month; and barber's and dhoby's charges to about Rs. 1-8-0 a month. There are other forms of expenditure such as soaps, aerated waters, snuff, tobacco; and all these by force of habit have become more or less necessaries. Teachers generally do not keep servants, but they have to spend a small amount in the way of wages to scavengers and sweepers. The average expenditure for all classes on this item comes to Rs 5-12-0 per month.

(ii) MEDICINE AND MEDICAL AID. (Maintenance of health.).

This item includes doctor's fee, charges for medicine, phenyl, tonics, castor oil, etc. From the answers to the questionnaire it is clear that most of the teachers incur some expense on this item. Though many of the middle class families do not spend much in the way of doctor's fees, they yet buy medicines, tonics and other things. Very few among the teachers take tonics or *lehyams*, still fewer buy phenyl for keeping their homes and drains sanitary. Medical bill in certain cases was high but it cannot be said that such high expenditure would continue over long periods. Teachers seek medical aid only in cases of serious illness of their children or in cases of delivery. So far as they are concerned, they must rather believe in 'natural cure' as one teacher has written and seldom consult doctors until they feel they are utterly unfit for normal work. In spite of pinching economies practised by the teachers, they have to spend in times of illness more than they can ordinarily afford and it takes quite a long period for them to wipe off the debt they had incurred on those occasions. The average expenditure on this item comes to about Rs. 2 per month.

(iii) PROFESSIONAL EXPENSES.

The head *professional expenses* includes examination fees, if any; expenses incurred in buying books, periodicals, subscriptions to associations, etc. As J. J. Findlay says, "There is no profession in which more energy is now expended in self-development after the qualifications are secured." Teachers in Secondary schools should at least keep themselves in touch with the latest literature on pedagogics, and as cultured men should cultivate their minds reading books on literature and other subjects they have specialised in. Teaching as an art and a craft is fast developing on the most scientific lines. New methods of teaching are constantly devised, new equipment is being perfected, new objectives are being proposed. The public have a right to expect the teacher if not up-to-date in his method, at least to know the tendencies in modern teaching to give the most effective service he is capable of. The need for continuous growth is no less urgent in teaching than it is in law or medicine. Headmasters of schools expect their assistants to keep up with educational progress and to strive for continued development; otherwise there is no meaning in the assumption that an experienced teacher is a much better teacher than a beginner. If that were not so, experience will only be a disqualification, a real handicap, a mark of out-of-datedness, and continuity of service would not mean professional efficiency. A teacher cannot certainly be efficient if he does not study, and study is the only hobby he can cultivate. He has to become a member of an association or club, get books and magazines from the public libraries and all this means expense Only 3 out of 72 teachers spend a decent sum on books, etc., 5 are members of the University Library and a large percentage are satisfied with what their own schools and Teachers' Associations provide for them.

(iv) VACATION TRIPS.

63 out of 82 teachers who sent in answers to the questionnaire are not natives of the city. At least once a year they visit their native villages, where they have their homes, friends and relatives; expenditure on such trips forms an appreciable demand on this income. Besides, during the Dussara and Xmas holidays, some go on short trips to see historical places or to attend a conference; teachers of one High school in the city attend Educational Conference in a body and go on educational tours every year.

There are not many teachers who can afford such trips but one would like teachers to travel a little just to see some educational institutions or to attend conferences. Average expenditure on this item comes to about Rs. 12 per annum.

Many of the schools have Teachers' Associations and a large number are also members of the Madras Teachers' Guild. They pay subscriptions to those bodies, attend meetings to take part in discussions, all which involves expense. Some teachers studying for higher examinations have to incur some expenditure in buying books and paying examination fees. The average amount spent on this head is about Rs. 1-12-0 per month.

(v) EDUCATION OF CHILDREN.

It is but natural for teachers to wish to give as good an education to their children as might be possible. There are about 70 teachers with children, boys or girls to educate There are 14 teachers with either sons or brothers studying in colleges. Schools that show any concession to the children of their teachers are very few and most of the teachers spend money on the education of their children, which involves expense on books conveyance and school fees. Average expenditure on this item is Rs. 2-10-0 per month.

(vi) DOMESTIC FESTIVALS.

An Indian household cannot escape from incurring expenditure on domestic fesitvals. The Hindu, Christian, or Muhammadan calendar contains a number of days on which some religious or semi-religious function has to be performed and such occasions are always followed by feastings. Among the Hindus, Deepavali, Pongal, Vinayaka Chaturthi, Karthigai Deepam, Navarathri, etc., to mention only a few important ones, are such occasions. Especially in Navarathri, a middle class family is put to much expense. Besides these, certain ceremonies or entertainments are obligatory on such domestic occasions as births, marriages, or deaths. It is practically impossible to christen a child, or to put it to school without expense; to perform Upanayana or marriage means considerable expense. A death or a marriage in a family would mean disaster inasmuch as the Indian family especially a Hindu family, incurs a disproportionate expenditure out of regard to social usage. The questionnaire did not seek to ascertain information regarding such domestic occurrences. Though it was certain that some amount would be necessary for such expenditure in any complete family budget, it was felt that there was no standard to measure such expenditure by, and other factors than purely social such as caprice, taste, determined such expenditure in different families making an average estimate extremely difficult, and so the scope of the present investigation may be considered to be a limited one in this respect. But the statement that it is on such occasions that heavy debts are incurred may safely be made. Regarding births, deaths, and marriages, if we assume that in the life time of a teacher, one event of each kind occurs and if we arbitrarily fix the expenses at Rs. 50, Rs. 200 and Rs 500 respectively it becomes necessary for the teacher to make provision to the extent of Rs. 750 in his life time for such events. If we take his period of service to be 30 years, he will have to set by Rs. 25 a year or more than Rs. 2 a month. But this is clearly an underestimate for a middle class family and ordinarily more births and deaths and marriages occur and more is spent on each of these events.

There are other forms of ceremonies which a Hindu house holder is obliged to perform. They are chiefly Sraddhas which are performed every year. A Sraddha costs about five to ten rupees and a teacher has to perform, on an average, two Sraddhas at least every year. There are 8 teachers who perform more than two. Average expenditure incurred on domestic ceremonies and Sraddha is about Rs. 2-8-0 per month.

(vii) AMUSEMENTS.

The city affords various means of spending money on amusements. The cinemas, dramas, musical entertainments have all become a part of city life and many spend a small sum on one or other form of these amusements. Entertaining friends in their houses, feeding Brahmins on important days, feeding guests, are all so important parts of the social life of the middle class. Besides among Brahmins on important occasions such as domestic event in his family, like namakarnam, upanayana, the teacher invites almost all his colleagues feeding them sumptuously and spending several times more than he can conveniently afford.

(viii) PROVISION FOR OLD AGE.

Teachers like the members of other professions have to provide against old age or sickness. The Provident Fund contribution is the only form of savings in the case of many teachers. Since April 1923, the Government have made it compulsory on the part of permanent trained teachers to contribute to the Provident Fund. 6¼% of their salary together with half that amount contributed by the management is deposited in the Post Office Savings Bank every month. The Government contributes one-third of the aggregate at the time of the closing of the account. A decent member of teachers have insured their lives with various insurance companies and more than 100 teachers in the city have become members of the South India Teachers' Union Protection Fund.

(ix) CERTAIN OTHER ITEMS OF EXPENDITURE NOT COMING UNDER THE SCOPE OF THESE BUDGETS.

For example, teachers have tables, chairs, benches, pictures, cots, mosquito curtains, articles of bedding and a number of other things in their houses and the expenditure on them is neither uniform in all cases nor periodical. Luxuries of some kind, as for example, jewellery, were not included in these budgets. It is impossible to get any accurate information about these, but it may be said that they are not negligible items. Jewellery of some kind in Hindu homes, especially among Hindu women, can be regarded as no luxury at all, but a necessity. The amounts spent on jewellery is purely a matter of personal taste or caprice; they are sometimes very valuable and are often presented to the wife on the occasion of marriage or they are practically of no value as jewellery; and so these could not be included in the budgets. Among lower middle class Hindus any small saving is invested in jewels more as a provision for some emergency than as an article of personal adornment, though in the long run they serve both the purposes. Most of the teachers have neither ear-rings, rings, and their wives do not possess much of jewellery. The teachers themselves realise that their wives cannot afford the luxury of extra jewels and I have heard from older teachers that the happiness of many a family was marred by bitterness due to the inability of the husband to satisfy what may appear to be the vanities of his wife; but changing fashions have brought some peace to the teacher's life and really cultured people no more parade their jewellery and silk-lace saree since simplicity and khaddar are promising to become the fashion of the day.

Table XIV. Details of expenditure under the Miscellaneous item.

Number of budgets 72.	Average Amount per month.	Percentage to total expenditure.
Hired help, if any	1 8 0	1.7%
Washerman	1 0 0	1.2%
Barber	0 8 0	.6%
Toilet articles	0 12 0	.9%
Betel, nut, aerated waters snuff, tobacco, etc.,	2 0 0	2.3%
Maintenance of health	2 0 0	2.3%
Professional expenses: Exam. fees Books, Newspapers Subscriptions, etc.,	1 12 0	2.0%
Vacation Trips	1 0 0	1.2%
Education of children	2 10 0	3.1%
Domestic ceremony and Sraddha	2 8 0	2.9%
Hobbies	0 4 0	.3%
Total.	15 14 0	18.5%

14. MINIMUM OF SUBSISTENCE.

At this stage, it should be possible to arrive, in a rough way, at what is called the minimum subsistence for the teacher's family or that of the lower middle class in general. The Salaries Committee appointed by the Government of Madras has endeavoured to estimate the daily essential expenditure on food in 1917. Dr. Gilbert Slater in trying to discover a living wage for the labouring classes in Madras took the diet prescribed in jail for an adult prisoner doing hard labour as a basis and found that the cost of food per day for

such a person in Madras in 1917 was 2as. 9ps. making for a month of 30 days Rs. 5—2—6 and he concluded that Rs. 5 per month might be regarded as a reasonable allowance for food for a man doing manual labour. Rev. D. G. M. Leith in 1920 at a private meeting of the Madras Section of the Indian Economic Association opened a discussion on the "Minimum Subsistence" in the city of Madras. In the course of the discussion he said that the minimum of expenditure on food items according to the jail diet (at the price prevailing then) for a man was nearly Rs. 6-5-0 at the rate of 0-3-5* per day, an estimate which did not materially differ from the one made by the Salaries Committee.

If we take this estimate allowing for the fall in price of some of the articles in the list considered by Rev. Leith, and work out the expenditure on *food* for a teacher's family or a middle class family consisting of 1 man, 1 woman, 2 children and an adult dependant we get the following:—

for 1 adult Rs. 6 (allowing for the fall in the prices)

for 4.2 adults * 4.2×6=Rs. 25.2 or Rs. 25 nearly.

We should bear in mind that this does not include expenditure on milk and curds, ghee, oil for bathing, and other spices which form indispensible parts of even the most simple diet of the poorest of the middle class person. So, on the assumption that a middle class diet includes all the above mentioned articles, we provide 4 ollocks of milk for 4 adults for coffee and buttermilk at the rate of one ollock per day per adult which comes to Rs. 7½ per month of 30 days (one ollock of milk sells at one anna). Allowance for oil in jail according to Rev. Leith cost nearly 2 2|3 pies a day or 6as. 8ps. a month. In the jail, oil is not allowed for oil bath to which a person of the middle class is accustomed from his birth and hence an extra viss for the family should be provided. The price of oil per viss ranged during the months of October to Dec. 1930 from 12as to 13as. Hence oil allowance will at least be 12 annas. Ghee is another important article without which no middle class person takes his dinner and it would come to Rs. 2-12-0 per month. Clothing at a minimum together with the necessary bedding would be Rs. 8. House rent at a minimum will be Rs. 12; and about Rs. 3-0-0 for fuel and lighting.**

So the minimum requirement of a middle class family will be:

Food	25	0	0
Milk and buttermilk	7	8	0
Ghee and oil	3	4	0
Clothing	8	0	0
Rent	12	0	0
Fuel and lighting	3	0	0
Total	58	12	0

Or nearly Rs. 59-0-0 a month.

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*He said the food per day may thus be summarised according to jail regulations:—

Ragi	0	1	3
Rice	0	0	6
Dholl	0	0	7 1|3
Vegetables	0	0	6
Oil	0	0	2 2|3
Tamarind	0	0	2|3
Salt	0	0	1|6
Curry powder	0	0	2
Onions	0	0	½
Total	0	3	4 1|3

This list does not include oil for bathing, milk and milk products, spices of various kinds, betel, coffee or other beverages.

According to Rev. Leith rice was sold then at 3⅛ measure per rupee; Dholl at 2¾ measure a rupee; Tamarind and salt were sold at nearly the same price as now. During the period from October to December 1930, raw rice was sold at 3¼ measure per rupee; Dholl at 3½ to 4 measure per rupee. Hence no considerable fall has occurred at least regarding the price of those articles in the list.

*The scale adopted by the Inter-allied Scientific Food Commission to convert women and children to adult standard is as follows:

Male over 14—1.00; Female over 14—.83; Children between 6-10—.7; children under 6—.5. By adopting this scale we can convert the family of one man, one woman, two children, and an adult as under:

Male	1.00
Female	.83
2 children	1.4
an adult	1.00
Total	4.23

**These figures are not overestimates. Unlike the life of a wage-earner or rather a cooly who pays a rent of Rs. 1-8-0 for a hut, a middle class person, especially, a teacher, has to pay a high rent. Re. fuel and lighting, a middle class family takes hot water baths once a week at least; and their consumption of fuel from the budgets collected and also from observation is never below 3 gundus or 1½ cwts. per month; at the price prevailing now it would cost Rs 2-4-0 lighting charges would come to 11 annas, the price of 1 gallon of kerosene. So Rs. 2-4-0 and 11 annas will come to Rs. 3-0-0 nearly.

As a measure of caution, if we cut off ghee supply and reduce milk allowance to 3 ollocks, *the estimate will not be less than* Rs. 55. Some may be taken aback when reading this estimate of minimum of subsistence for a middle class family in the city, but one cannot help putting down the result of an unbiassed examination whatever it turns out to be. Apart from the figures given in the budgets collected, estimates given by persons like Messrs. Slater and Leith are bound to lead us to a sum not very much smaller than the one arrrived at. An examination of the expenditure incurred by the middle class people on milk, oil, ghee, clothing, rent, fuel and lighting and a close and continuous observation of their life will convince even the most sceptic among us that the sum of Rs. 55 is not an over-estimate.

The full significance of the conception of the minimum of subsistence can be best expressed in the manner of Rowntree's definition as follows: A family living upon this income must never spend an anna on tram fare or bus. The members of this family must never visit their native places. They must never purchase a cheap newspaper or spend a few annas to see a cinema show or attend a popular concert. They must write no letters, use no soap, for they cannot afford the expense. They must never spend a couple of annas for any religious service in the temple or in charity. They must not indulge in betel chewing, entertaining guests, performing religious ceremonies such as Sraddhas, etc. They must not become members of any association because they cannot afford the necessary subscriptions. Their children must have no pocket money for dolls or marbles or sweets. The father must never drink coffee or take tiffin at noon; the mother must never buy any pretty cloth for herself or for children, the character of the family wardrobe as for the family diet being governed by the regulation 'nothing must be bought but that which is absolutely necessary for the maintenance of physical health and what is bought must be of the plainest and most economical description'. Should a child fall ill it should be taken by the father or mother to the corporation hospital; should it die———. The chief earning member should never fall ill beyond the period of casual leave allowed, and should never incur medical expenses His wife should not give birth to children, and his home should remain an utter stranger to domestic festivities. If any of these conditions are broken, the extra expenditure is met, and can only be met, by limiting the diet (or by borrowing), or in other words, by sacrificing physical efficiency.

15. THE STANDARD OF LIVING.

The conception of *Minimum subsistence* is not the same as that of the Standard of Living; the former can be estimated on some theoretical basis, and the latter is extremely relative in its meaning and application. The standard of living differs for different classes of people and *it includes besides the minimum of subsistence or the bare necessaries of life certain amount of comforts and even luxuries.* Bearing in mind that we are studying not the condition of the labouring classes who depend on daily wages, but that of the lower middle classes on monthly salaries, comparatively more stable income, allowance should be made for the following in discovering a standard of living.

	Rs.	A.	P.
Conventional luxuries such as betel chewing, shaving, washing soaps and domestic servants, which will come to ..	4	0	0
For cofee seeds ..	2	0	0
Newspapers etc., .	1	0	0
Subscriptions and postage ..	0	8	0
Domestic festivals and religious ceremonies ..	2	8	0
Medical expenses ..	2	0	0
Education of children, etc ..	5	0	0
Total ..	17	0	0

If we add this sum of Rs. 17 to the minimum of subsistence we get Rs. 72 nearly Somehow the teacher should make this sum if he should maintain the standard he is accustomed to and hence lower salaries paid to teachers do not imply by any means that they would manage to live solely on their salaries. It is within the experience of every teacher that the lower the salary the greater is the desire and effort of the teacher to eke it out by agreeing to give too many tuitions and it is imperative that the real income of the teacher should tend to approach that figure It will be also seen (from Section 17 analysing the real income) that teachers whose salaries are above Rs. 100 earn very little supplemental income by giving tuitions, a fact which should serve as an eye opener to the public that teachers are not after all greedy, but are a class of people really inclined to live a contented life if only a fair allowance is assured to them so that they may live a fairly comfortable life, free from the cares of poverty, able to educate their children and provide for old age

One other point to be emphasised in this connection is this. It is not this sum of Rs. 72 which would provide the bare living standard, but the

margin over and above this sum or the certain prospect of enjoying that margin after some years of service that would attract really efficient and capable young men to the teaching profession. It is this margin that would be weighed and considered by the not over ambitious young men when they choose a career, and it is needless to add that the larger this margin appears in the long run the more attractive will the profession be considered But nobody is inclined to plead that teaching profession should be made as attractive as the F. C. S. or I. C. S. The crying need of the profession to-day is that teaching should absorb fairly talented men with spirit and ambition and initiative, who may not set much store by the good emoluments they would get but value the opportunities for social service and contented life on a moderately good salary on a par with the salaries of the first grade clerks in government service.

16. SALARY AND ITS SCALES.

A study of the starting salaries for different grades of teachers generally obtaining in various schools is necessary in an enquiry of this kind. Generally only trained teachers are appointed in secondary schools. According to the Report of the Director of Public Instruction, Madras, the number of trained and untrained teachers in the various schools in the city is as follows for the years 1925-26 to 1928-29.

Table XV

	Trained.				Untrained.	Percentage.	
Years.	Graduate.	Inter S. S. L. C.	El. Grade.	Others..	All classes..	of trained teachers	of untrained teachers.
1925-26	147	213	69	69	178	73.8	26.2
1926-27	179	222	62	72	180	74.8	25.2
1927-28	169	203	75	69	143	78.3	21.7
1928-29	170	237	43	63	143	78.2	21.8

This shows that only on rare and exceptional occasions untrained teachers are employed in schools; and in such cases the department should always be informed of the circumstances under which such appointments are made. Of the untrained teachers, most are pandits and a small number are of other grades.

The supply of trained teachers is not inadequate and more than sufficient for the demand which is not fluctuating from year to year. So long as there is unemployment among the educated middle classes and no new secondary schools are opened, the supply of trained teachers is bound to be large This has resulted in under-bidding on the part of teachers for jobs in schools and managements know full well that the services of trained teachers can be bought at almost competetive prices and instances of appointing L Ts, on salaries ranging from Rs 55 to 65 and Secondary Grade teachers on as low a salary as Rs. 25 a month are not unknown.

We have heard it said that ambitious young men who were poor and could not afford the luxury of an expensive legal education became teachers, and in their early career, being free from from the cares of family, saved a decent amount, left the profession and became lawyers. But in these days, teaching has achieved or is rapidly achieving a definite professional status. It is no longer regarded as a stepping stone to other professions. The keen competition for posts among the educated has been so great that the statement 'once a teacher, ever a teacher' may be regarded as an axiom Hence teachers regard with apprehension instances of large numbers of new entrants compelled to sell their services for low salaries and managements taking advantage of the helplessness of unemployed trained men.

Teachers were also requested to state the period of service they had put in and their salary and service in the school in which they are at present employed so as to enable one to infer the effect of a break in the continuity of service of a teacher.

From the table XVI, we find that among Graduates, 2 teachers of over 10 years' service are drawing salaries below Rs. 80; among Secondary Grade teachers, 6 with more than 10 years' service are drawing salaries less than Rs. 50, and one S.S L C. trained teacher of over 15 years' service is drawing only Rs. 35. Among Pandits, instructors, etc. 8 teachers of over 10 years service come under the group Rs. 35 and below. It was found that all these teachers had left an institution and taken service in another. Some have seen service in

three or four institutions. The S.S.L.C. trained teacher referred to above has filled temporary posts in three schools, has served for 7 years in a school outside the city and has recently joined the staff of a school in the city on a scale Rs. 30-1-40. When a teacher leaves one school and takes service in another, he is often started on the minimum salary for his grade and his past service is not generally taken into account in fixing his starting salary.

Table XVI.

Grade.	Total Service in years.	35 Rs. & below.	36-50	51-65	66-80	81-95	96-110	Over 110	
	Under 5 years	—	—	3	7	1	—	—	11
Graduate Teachers	5 and below 10 years	—	—	—	3	4	1	1	9
	10 and below 15 years	—	—	1	1	—	1	3	6
	Over 15 years	—	—	—	—	1	—	3	4
	Under 5 years	—	1	—	—	—	—	—	1
Intermediates	5 and below 10 years	—	2	2	—	—	—	—	5
	10 and below 15	—	—	2	—	—	—	—	2
	Over 15 years	—	—	1	1	..	—	—	2
	Under 5 years	—	—	—	—	—	—	—	—
S. S. L C.	5 and below 10	—	7	—	—	—	—	—	7
	10 and below 15	—	1	2	—	—	—	—	3
	Over 15 years	1	4	2	—	—	—	—	7
	Below 5 years	—	—	—	—	—	—	—	—
Pandits Instructors and Higher grade	5 and below 10	—	5	—	—	—	—	—	5
	10 and below 15	4	7	2	—	—	—	—	13
	Over 15years	4	1	1	—	—	—	—	7
Total.		9	28	18	12	6	2	7	82

There is no uniform salary scale for all the aided schools The usual scale of salary for L Ts is Rs. 60 or 70-5-100 or 120. For the Intermediates, it is Rs. 35 or 45-3-60. For the S.S.L.C., trained, it is Rs. 30 or 35-2-45 or 50 For the Pandits and instructors it is Rs. 30 or 35 -2-50 In those schools with more than one pandit the senior pandit gets a little more than the junior pandits.

There is a scale, no doubt, but it is only during a part of the long service which a teacher puts in and then there is no addition to his salary, i.e., in other words, scales of salary do not cover a long period of years When one, at an age of 25, enters service he reaches his maximum in about 5 or 8 years and then with the growing needs of his family, he has to make both ends meet. Just when his children are growing up and need education, his income reaches maximum and no improvement could be effected in salary. Of course compared with other professions, the initial salary of the teacher is a little higher, because the teacher has the advantage of some professional course which has some value, and with it, he is better than a raw man, not trained for any particular work.

An untrained man usually gets a lower salary which is quite on a par with the salaries of beginners in clerical service of the higher or lower grade according to qualifications. So the seeming high start which a trained teacher gets is absolutely due to his training. At a time when he has not a number of children to support or to educate, it may appear as if that salary is rather a good start in life. But with years of service, if it does not rise to meet the growing needs of his family, but stands stationary, he becomes dissatisfied with the conditions of service. The characteristic of a good profession is a rising scale of salary which would grow larger and larger as the worker becomes older and more experienced. It is on account of this that teaching profession is unattractive. A young man who is able to see his future will not naturally enter the pro-

fession because of this. If we compare the salary of a teacher with the salaries in other professions, it is this defect that makes teaching a low paid profession.

To the question, "what salary would satisfy you"? many grades have been suggested by the teachers. It should be said in fairness to them that not one of them put forward extravagant claims and suggested high salaries for their grades. In all the suggestions received there was this aspect common: the scale does not stop with five or eight years, but extends over a long period of years, at least 15 years, in some cases with an efficiency bar. From the answers to the questionnaire, one could see that the graduates would be satisfied with a grade Rs. 90-5-170-6-200; the Intermediate teachers, Rs. 60-3-105; the S.S.L.C. trained teachers, Rs. 50-3-95, and the same grade for the Pandits and instructors.

17. TOTAL INCOME.

In most cases, teachers have to earn an additional income by doing extra work which usually takes the form of giving tuition to boys of their own school or of some other school or of writing books;* otherwise they are not able to meet the expenditure of the family In the case of graduate teachers, this additional income is earned with out much inconvenience to themselves or an undue sacrifice of leisure involving much overwork. A tuition engagement, in their case, would add from Rs. 20 to 40 to their income. There is also the prospect of their securing an assistant examinership in the S.S L.C. scheme of examinations once in five or six years. Teachers of other grades feel a more intense need to add to their income by having more than one tuition engagement; pandits and instructors are not much in demand for this kind of work and their income consists mostly of the salaries they get together with a small income from lands, their ancestral property. But there are a few pandits and teachers in the city who earn by writing books and it needs scarcely be said that many are not properly remunerated and often find themselves at the mercy of the publishers. Those who have published their books themselves are certainly in a much better condition. The following table shows how the real income of the teachers of various grades is made up.

It is clear that under the conditions obtaining at present, supplementary income is an important part of the teachers total income Any profession which makes supplementary income a necessity cuts down the legitimate leisure of the member, drives him to overwork himself and deprives him of opportunities for social Service.

*Teachers of secondary schools in other countries have been successful in earning a decent income by authorship; but in India, the art of publishing textbooks has not yet developed to any great degree.

Table XVII.

Number of Teachers. 82	Grades.	Salary.	Tuition.	Other Sources: Income from lands Publications, earnings of family.
30	Collegiate Trained	79 %	11 %	10 %
10	Intermediates	72 %	22 %	6 %
17	S.S.L.Cs. or Matrics	64.5%	22.5%	14 %
4	Higher grades	59 %	31 %	10 %
7	Instructors	62 %	9 %	29 %
14	Pandits	58.6%	10.7%	30.7%

This necessity to eke out his salary to get a living wage, makes him, in many cases, lose the freshness and vigour necessary to do his normal work in the school. The capacity of the teacher to interest himself in intramural and extra-mural activities tends to disappear, the great problem of the teacher becoming how to make both ends meet. It seems that salaries now paid to teachers are based on the assumption that they would be added to by tuition work A method of remuneration is bound to be fraught with much evil and will cause great loss to the community. It will not only breed discontent but in the long run will bring in a large number of third rate men, and unfits and perhaps also misfits into the professiŏn.

18. INDEBTEDNESS.

Now, an examination of the income and expenditure of the 72 families studied would present the economic condition of teachers in secondary schools in the city. The following table shows the *annual salary* of the various grades of teachers and the total *annual expenditure* of their families.

It will be seen from the table that only 7 out of 72 teachers are able to live within the limits of their annual salary. All of them are collegiate trained teachers; 4 of the seven are drawing salaries over Rs. 100 per month and their real income is higher still. The other three teachers have just started life and have comparatively small families. One of them owns a house and has no need to incur expenditure on house rent. Except one, the others are not burdened with ancestral debt. The rest of the teachers, it is clear, are not able to live within their salary limits, but are compelled to add to their income by having recourse to tuition work or other sources of income.

Table XVIII Showing the annual Salary and the annual expenditure.

Annual Expenditure.

Limits of Annual Salary.	Below 480	Below 600	Below 720	Below 840	Below 960	Below 1,080	Below 1,200	Below 1,320	Below 1,440	Over 1,440	Total.
Below Rs. 480		2	1	2	4		1		1		11
Below Rs. 600			5	7	3	3	2	3			23
Below Rs. 720				4	3	3					10
Below Rs. 840				*1*		2	2		1		6
Below Rs. 960					*2*	1	2	1	2	1	9
Below Rs 1,080							3	1		1	5
Below Rs. 1,200									1	1	2
Below Rs. 1,320							*1*				1
Below Rs. 1,440							*1*	*1*		2	4
Over Rs. 1,440								*1*			1
Total.	—	2	6	14	12	9	12	7	5	5	72

Figures in italics show number of families living within the limits of annual Salary.

But the following table giving *annual real income* of teachers and their annual expenditure may be of greater value in showing the solvency of the teacher class as a whole.

Table XIX Showing the annual income and annual expenditure.

Annual expenditure.

Limits of annual income.	Below Rs. 480	Below Rs. 600	Below Rs. 720	Below Rs. 840	Below Rs. 960	Below Rs. 1,080	Below Rs. 1,200	Below Rs. 1,320	Below Rs. 1,440	Over Rs. 1,440	Total.
Below Rs. 600		2	*1*	*2*							5
Rs. 720			2	*3*	*3*						8
Rs. 840			3	8	*2*						13
Rs. 960					5	*4*	*1*				10
Rs. 1,080				1		2	*2*		*2*		7
Rs. 1,200					1	2	2	*1*			6
Rs. 1,320						1	4	1	2	*1*	9
Rs. 1,440							1	1			2
Over Rs. 1,440					1		2	4	1	4	12
Total.		2	6	14	12	9	12	7	5	5	72

Figures *in italics* show number of families not able to live within the limits of annual real income.

It will be seen from the tabular statement that 24 out of 72 teachers or 33·3% live beyond their income. Of the 5 in the group the income of which is below Rs. 600, two balance their budgets, and 3 have deficit budgets; of 8 teachers with an annual income of Rs. 720 or below, 6 live beyond their income; 2 out of 13 teachers with annual income of Rs. 840 and 5 out of 10 teachers with annual income of Rs. 960 incur expenditure beyond their income. Two-thirds of deficit budgets come from the class of teachers whose income does not exceed Rs 80 per month. All of them are lower salaried teachers, (secondary grade, Pandits, and Instructors) who even with additional incomes are not able to balance their budgets. Another inference is that almost all the teachers, from the lowest to the highest grade, have to depend on the supplementary income earned by giving tuitions, which has been characterised by many teachers as an "unsteady" and "unreliable" source of income: and this does not augur well for the profession. Even with this additional income as many as a third of the number of teachers find themselves in unenviable position. They can only balance their budgets by borrowing and it is no wonder that a large number of them are in debt.

The following table will show the number of teachers in debt and the extent of their indebtedness. From the table, it can be inferred that 22 teachers are free from debts; 7 have debts below Rs. 100; 14 below Rs. 250; 9 teachers below Rs. 500; 7 below Rs. 750; 2 below Rs. 1,000 and 10 teachers have debts exceeding Rs. 1,500. Of these ten, 2 have borrowed for buying houses, one for his own education on the security of his house, and 3 have inherited debts, and the rest have contracted debts for meeting marriage or funeral expenses or both.

Table XX Showing extent of indebtedness.

Limits of annual salary.	No. debts.	Below Rs. 100	Below Rs. 250	Below Rs. 500	Below Rs. 750	Below Rs. 1,000	Below Rs. 1,250	Below Rs. 1,500	Over Rs. 1,500	Total.
Below Rs 480		1	2	4	2	1			1	11
Rs. 600	8	6	6	2	2				3	27
Rs. 720	3		2	1						6
Rs. 840	2		3						1	6
Rs. 960	3		1	2	1				2	9
Rs. 1,080	1				2				2	5
Rs. 1,200	1									2
Rs. 1,320	1								1	1
Rs. 1.440	2									4
Over Rs. 1,440	1					1		1		1
Total.	22	7	14	9	7	2		1	10	72

There are 29 teachers with debts exceeding Rs. 250; of these 16 are Pandits, Instructors and Secondary Grade teachers whose monthly salary does not exceed Rs 60. So, a large number of lower paid teachers are in debt. But it should not be thought that very few of this class of teachers would be free from debts. For 11 out of 22 teachers free from debts come from this class; and a study of their budgets shows that very little is spent on hobbies, news-papers and magazines, books or subscriptions, and they manage to live within their means by cutting short necessary expenditure even at the risk of loss of efficiency.

On the whole, the indebtedness of the families in debt extends *ordinarily* to the equivalent of four month's earnings in the case of Pandits Instructors and Secondary Grade teachers and 3 months' earnings in the case of collegiate trained teachers. The extremes were equivalent to 15 to 20½ months'

The total amount of debt according to the answers to the questionnaire is Rs. 37,460, of which Rs. 2,150 is a loan from the Government Provident Fund account (with no interest) Rs. 12,250 at 12%, Rs. 5,600 at 9⅜%, Rs. 6,800 at 6%, and the rest at 15%. This works out at an average of Rs. 520 per teacher.

Though it is impossible to give any detailed history of the indebtedness of each teacher, the figures given in the preceding paragraph should

suffice to show that teachers as a class are in a bad way. Since teachers as a class cannot be accused of extravagant or wasteful expenditure as on drink or gambling, the causes for their indebtedness should be found elsewhere. Any attempt to elucidate the exact amount of debt or the nature of circumstances that forced them to borrow proves ineffective in face of the shyness and great unwillingness of teachers to furnish details. Yet the mere attempt to enquire does not fail to give us some useful information regarding the causes of indebtedness and the method of borrowing. It is found that some of the important causes have been the following. (1) Expenditure on domestic ceremonies (2) Marriages or deaths. (3) Sickness. (4) Borrowing for unproductive purposes. (5) The credit purchase system.

As has already been mentioned, expenditure on domestic ceremonies is incurred not according to one's means, but custom and social usage. Marriage expenditure too, though of similar character, is much larger and as such deserves to be looked into. The pernicious dowry system holds the Brahmin Society in its iron grip and escape from it seems almost impossible. Three teachers have spent Rs. 1,200 to Rs. 1,800 on the marriage of their daughters. Teachers competing for bridegrooms in the same market with other middle class people engaged in gainful professions find themselves in very disadvantageous positions and secure husbands for their daughters at enormous cost, very much beyond their means. In addition to the debt (which had been mainly incurred by their fathers for marrying their daughters) they had inherited, they have to borrow for this purpose and feel that daughters mean a very expensive affair to them.

Another cause of indebtedness is sickness. When the members of his family fall ill, the teacher has to meet the medical bill which does not usually find a place in his budget. Malnutrition, sickness etc., seem to be a general feature of the health of teachers' children since most of them have to restrict expenditure even on necessaries. In a big school in the city, where children of 8 teachers were studying it was found from the medical reports that the children of six of the teachers were suffering from malnutrition. When teachers themselves fall ill, they sustain heavy loss in their income while at the same time they incur extra expenditure on medicine. In cases of delivery at home, teachers are unable to call in medical aid or command the services of trained midwives or nurses. Hence teachers look with considerable apprehension even on events of common occurrence in the process of natural growth of their families; and a nice situation this for a class in whose hands lies the training of the nation's children!

The fourth cause is the habit among teachers of borrowing for unproductive purposes, i.e., obtaining loans not for increasing their professional efficiency or for building or buying houses but, "for paying up sundry loans" or "buying provisions" and for meeting such other unproductive expenditure. A large number of teachers who usually manage to balance their budgets have to meet certain demands for which they are unable to make provision month after month; for example, when purchasing articles of dress, or going on a trip to native place or to attend a conference, or paying interest on loans and paying insurance premia etc., they are compelled to borrow a lump sum and add to their burden of debt.

Another cause is the practice of purchasing on what is called credit system. They buy most of their household requirements from the retail shopkeeper (in the neighbourhood) who would be glad to have his bill met in the succeeding month; and many purchase even articles of food as rice, pulses, spices, sugar etc., in small quantities with the result they are paying a decidedly higher price for the same articles than if they would on cash purchase system. This practice of purchasing on credit encourages teachers to postpone payment for several months together till at last they find themselves forced to borrow a good round sum to pay off such debts. It has been found that several teachers not only leave their dues to accumulate at particular shops, but go on buying on credit from other shops, one after and other, till their credit is exhausted and there have been instances of shop-keepers threatening legal proceedings or actually procuring decrees for dues which had long remained unpaid.

All these are sufficient to drive teachers to borrow frequently; but it is a relief to find that they are wise enough to go to the Co-operative Credit Societies or Fund offices. Of the 72 teachers, only one has borrowed of a Marwari. Those who are eligible to borrow from their Provident Fund account do so. It has not been possible to acertain details of loans from the Government Provident Fund but information obtained by oral enquiry leads one to the conclusion that a large number have borrowed from the Provident Fund account, some more than once, a few even three or four times.

There is, besides the several co-operative societies in the city, the Madras Teachers' Guild C. C. Society exclusively for teachers with about 250 members, most of whom are employed in the Secondary Schools. From this society a member can obtain not only simple loans, but short time loans called '*salary loans*' up to one-fourth of his salary after the 10th every month on the security of the salary he has already earned, repayable in the following month when he draws his salary. The usual interest charged is 9⅜%. Besides these, there are also emergency loans. All these forms of loans are very popular and largely availed of by the members.

The following statement about the number of loans and the amount of loan disbursed taken from the reports of the Madras Teachers' Guild C. C. Society will be found interesting.

Table XXI showing the number and amount of loans.

Year.	Number of Loans.	Total amount of Loan Rs.	Average amount of loan per head Rs.	Number of members.	Frequency of loans
1926-27	1144	50,401	44	210	5
1927-28	1269	68,979	54	228	5
1928-29	1535	75,328	50	260	6

It should be mentioned that only 29 out of 72 teachers who have furnished answers to the questionnaire are members of this co-operative credit society. Only about a third of the teachers in Secondary Schools are members and hence the effort of this Society to deal with the indebtedness of teachers seems to be very small when placed against the huge sums owed by certain classes of teachers.

On the whole, it can be said that teachers generally do not find it difficult to obtain loans and, as one teacher puts it, in the circumstances in which they find themselves, 'it is some consolation to realise we (teachers) command credit.'

19. SECURITY OF TENURE

The questions under this heading were calculated to elicit information about the service conditions of teachers and the extent of security enjoyed. Where possible teachers were asked to record their personal experiences and give particulars regarding cases of insecurity of which they had knowledge. It is a matter for regret that an appreciable number of teachers were reticent on a matter of such vital importance. However, the answers provide sufficient material to form a fairly correct judgment of the position.

There is an impression in the minds of educationists and public men that teachers do not enjoy an adequate security of tenure. The Reports of the Director of Public Instruction, year after year, have referred to insecure tenure of teachers; and the G. O. No. 180, Education, dated 6-2-30 implies an admission on the part of the Government that in many institutions teachers do not have any reasonable sense of security of tenure of service. *The Interim Report of the Indian Statutory Commission* says, "The most serious difficulty facing the teacher in the great majority of privately managed schools is *insecurity of tenure*. Generally no contracts or agreements are made and teachers are frequently sent away at short notice. We had it in evidence that some schools even make it a practice to recruit teachers for nine months, thus avoiding the payment of vacation salaries, the payment of increments and the necessity for appointing permanent trained men". So far as the Madras city schools are concerned, it should be said that many of the teachers have been in service in the same institution for 10, 15 and even 20 years. This seems to be contrary to the widespread opinion regarding tenure of teachers. But to the question, "Do you enjoy a reasonable and adequate security of tenure?" only one teacher gives a definite affirmation as an answer. But he too, in answer to a subsequent question, says, "Teachers are sent out on flimsy pretexts." Some express that a never-to-be-cleared doubt exists regarding security. A few of the more optimistic pass on with the cryptic remarks, "I think so", or "If there is no insecurity that is security enough". The majority have returned a negative reply. From this it is clear that teachers don't feel they enjoy reasonable and adequate security of tenure. The existence of a large number of teachers with long years of service in a school need not necessarily be an indication of security of tenure. The manner in which the service of teachers is terminated is more often responsible for this feeling of unsecurity. So the *problem* as one teacher has summed up, is: "Is the present condition such that it is possible to send away a teacher for any cause other than academic or of moral turpitude without assigning reasons therefor? Is it possible for the managements to force a loyal teacher of long service to resign his job or to accept a

lower salary for financial or other considerations? Is it possible to engage a teacher only for nine or ten months in the year or to keep a qualified teacher on probation for an indefinite period or retain a trained teacher on temporary service for years together? Is it possible to replace a permanent teacher on communal grounds,? etc.," If the answer to these questions is 'yes', then it must be said that the profession at large does not enjoy a reasonable sense of security. An unjust termination of a teacher's service without making out a *prima facie* case against him or allowing him a chance to defend himself has the same effect on the entire profession as that of the breaking of an epidemic on the entire population.

From an analysis of the answers, it is found that some of the causes leading to insecurity of tenure are the following:—(1) It is a practice in some of the schools to recruit a teacher in July or August for a period of 9 or 10 months only with a view to avoiding the payment of vacation salary. (2) Some managements keep teachers on probation or temporary service for more than a year, even two or three years, thus avoiding the payment of increments and Provident Fund contribution. What sense of security can teachers in such circumstances, have? If the Education Department insists that the period of probation should not exceed 3 or 6 months and that all trained teachers, whether on probation or on temporary service should contribute to the Provident Fund soon after they are made permanent with retrospective effect from the date of their joining duty, many of the aided school managers would see no profit in keeping teachers temporary for more than a year. (3) In some of the schools under Mission management non-Christian teachers appear to be under constant fear of losing their jobs due to religious preference But it is clear from the evidence on hand and observation that service conditions and tenure are better in most Mission Schools than those in other schools; there has been no mention of even a single case when a non-Christian teacher, after being made permanent, was sent out to make room for a Christian teacher. (4) The policy of sending away teachers who had reached their maximum salary and employing in their places young men on a lower salary as a measure of economy seems no longer to be pursued by managements, for no teacher has mentioned such cases; but it cannot however, be assumed that such teachers are not forced to accept a lower salary. (5) The relation of the teacher with the Headmaster is found prominently mentioned by many as one of the causes of insecurity of tenure. The peculiar position of power and responsibility which headmasters hold in schools makes them the targets of much adverse criticism. The managements, more from their ignorance of school management than out of any considered policy, generally refrain from interfering with school administration and are always guided in their policy by the advice of headmasters. Such a policy invests them with large powers of appointment and dismissal; and the hazy limits of the profession and its duties afford much scope for misunderstanding and want of cordiality between headmasters and assistants. Teacher's duties do not admit of any clear definition, nor do headmasters have any accepted standards by which to measure 'efficiency of instruction'. Under such conditions it is no surprise to see that teachers attribute a part of their miseries to the 'vagaries of headmasters'. If the managements should insist that the head-teacher should carry on the internal administration of the School with the advice and consent of other teachers or a duly constituted *School Council* of teachers, many of the causes of misunderstanding and lack of cordiality will have been removed. The head-teacher and his colleagues would then be able to set about their *team work* with real understanding and cooperation and make school work pleasant and fruitful

Then observations like the following which are typical of the large number received as answers would not have been made. "I joined the school in 19—as a probationer; I don't know what I am now. Only confidants (of the headmaster) are in the know of facts. I fear I may be asked to quit at any time. Everything is kept a secret . .. .. pinpricks, daily and hourly supervisions and examination of (unnecessary) minute details. Unhappy and uncharitable remarks (are made) against teachers in the presence of boys." "Assignment of class-work to teachers without any rhyme or reason (without any regard to the teachers' experience and aptitudes). Jumps in increments to the favourites of the headmaster." 'Once told by the Headmaster, "must follow my policy, do whatever I order or resign.", writes a teacher. Another says, "The headmaster is all in all, and the teacher must always be in the good graces of the headmaster both inside and outside the school to retain his job. It was not enough if the teacher discharged his duty, *something more* was required of him" Yet another says, "Misrepresentation by the headmaster. Justice was done on further representation to the management". No one has ventured to give an exact statement of any difference between the management and himself on any broad principle or policy.

But many have referred in somewhat bitter strain to their relations with the headmaster, and have not referred to the Management. This is perhaps not because there is no difference at all. It is with the Headmaster and not with the Management that the teacher has to deal every day; and "little can the teacher afford to disagree and much less openly express it and face the music".

Reference should be made to one aspect of the effect of insecure tenure. A teacher of some service sent out of a school, has often necessarily to serve again on the lowest salary of his grade. His previous service and experience do not generally help to procure for him a salary near the one he was earning before.

Service in most of the non-mission aided schools is not on any agreement, notwithstanding the G.O. No. 180 re: the agreement which lays down the terms on which the teachers are engaged and directs "that the execution of a written agreement between the management and each teacher as prescribed in Appendix 28, shall be taken into consideration in granting recognition to or withdrawing recognition from a school".

20. CONDITIONS OF SERVICE.

To those who are not conversant with work in our Secondary Schools it should be mentioned that our city schools work from 180 to 200 days a year, which is usually divided into three terms, the first from July to the end of September, the second from October to the end of December and the last from January to the end of April. At the end of the first and second term, most schools close for a period of 10 to 15 days, and a long vacation of about two months from towards the end of April gives teachers a period of rest and recovery from the strain of a year's strenuous work. Most schools meet only for 5 days a week, a few even half a day more and every teacher has to work 18 to 22 hours out of 25 or 28 hours a week and to do much correction work out of school hours. What with daily round of school duties, with extra-mural activities, correction work and tuition work, teachers welcome the midsummer vacation with great relief.

There is provision in all schools for casual leave for a period of 10 to 15 days; but there is no uniformity in the provision for sick leave. In some schools sick leave for 15 days or one month is granted on half-pay. Only in one school a sick leave of 15 days can be accumulated for 8 years and commuted to leave on full pay. Details could not be obtained about the provisions for the payment of gratuity to teachers; but according to the answers received only a few managements have made provision for the payment of gratuity to those of the teachers who had put in long years of service in their schools.

21. CONCLUSION.

To the questions, "Are you satisfied with your work as a teacher? Are you satisfied with the role you play in life?" most of the teachers have returned a negative answer. But many are not able to assign reasons. Those, who have tried, confess that "it is not so easy to assign reasons." Many remark, 'no freedom to act'; some write, "badly paid and overworked'; one complains that teachers are 'not treated with respect'; and another gives out that 'the system is stereotyped and there is no scope for experiments and the work of the teacher is not appreciated by the community.'

Various remedies have been suggested by teachers. All of them agree in their demand for "full internal freedom at school," for an adequate salary schedule so that teachers may not be compelled to eke out their income by 'private tuition work', and for the constitution of school councils. Some teachers wish to have 'a voice in the shaping of educational methods'; one even suggests that 'teachers should have their representatives on the managing boards of their schools'; another holds that 'starting secondary schools on new lines by teachers themselves with missionary zeal on co-operative principles' will solve many of the problems of the profession. Many seem to think that, the status of the teaching profession would be raised by sending their representatives to the Legislative Councils, and one member asks the S. I. T. U. to 'agitate for 10 seats in the Provincial Legislative Council as educational interests are not properly represented and also as nobody cares to speak for the poor teacher.' There is also the suggestion that the teaching profession should strongly organise itself and agitate for the reorganisation of the educational system and the betterment of the service conditions. Having profound faith in the motto *'Raise yourself by your own efforts'*, many teachers suggest that "better conditions could be brought about by educating public opinion through varied extra-curricular activities in the school and through efficient organisation and social service outside". Thus it is clear that a large majority of teachers are neither satisfied with the system of education nor with their pay and service conditions; nor are they satisfied with their status in life or with the school conditions under which they have to do their work. It seems that the most discontented class among educated people is the teacher class. The fact that 'a discontented teacher is a social danger' is hardly recog-

nised by the Society or the Government. Teachers must be made to feel that their ordinary needs and those of their family are well provided for by adequate scales of salaries rising by annual increments—by a sort of Burnham Scale—which would enable them to provide for professional study, cultural development and for old age. Besides, Government should see that teachers in aided schools enjoy reasonable security of tenure and that schools adopt uniform leave rules similar to those for the vacation department of Government.

Another matter on which teachers feel strongly is about their position inside the school. The solution for this lies entirely with teachers themselves. "The first thing to do is to make the teachers' associations of the school a strong and absolutely united body of men by constant mutual sympathy by cultured and friendly relations with one another. and the habit of co-operation in the several sides of school-work. A good headmaster will be an active member of the brotherhood of teachers in his own school and then in a wider sphere. One would wish that *our headmasters, who are a class of able men, realised their special position of leadership, each in his place, and promoted sympathy between fellow-workers with their schools.*"*

Teachers feel dissatisfied with the system of education of which they are so important agents. Neither has the Government been following any consistent educational policy, nor have we succeeded in fitting out our schools to fulfil national requirements; but the result has been that an exotic system of education, unrelated to our tradition or culture or our needs, has evolved. No wonder that such a system satisfies no one, much less a teacher. What we need to-day is a system of modern education built on the enduring foundations of our culture and environment, adapted to solve the problems of our country which is mainly agricultural with her industries slowly developing. The task of our schools should be to train Indian children to be Indian by creating modern outlook in them, inculcating sound principles of co-operative action and making them enterprising young men fit to take part in the organisation of agriculture and industry, in higher commerce and foreign trade and not merely training them to be dependent on clerical jobs in Government offices or foreign firms.

But the reorganisation of our educational system cannot be effected without strong public opinion. Here again teachers alone, of all sections in society, can by persistent effort at organisation of their profession and propaganda work, educate public opinion regarding education and teaching service. "There is no calling which depends so greatly on the public good-will. Other professions and trades can pursue their business with little regard for the community, but the teacher although not a civil servant, has to regard his work in these democratic days as eminently a public service, and a professional service." He must take part in varied extra-mural activities and work out sound schemes for parental co-operation. He should interest himself in social work by organising adult education centres and civic associations and form links of common association with local people in many quiet ways. Activities such as these will provide teachers with innumerable opportunities to come in intimate contact with all classes of people in the locality; to have free and frank discussions with them about educational problems and to mould public opinion which would bring about the reorganisation of educational system and the betterment of the teaching profession. It is only through efficient service that teachers can work their salvation, and the example of Elementary School teachers in London, who by taking part in social service in the East-End rose considerably in status should hearten their Indian brethren.

*Mr. Saranathan.